# CompuServe Information Service

# TODAY

APRIL 1982 PRICE $2.50

## Groups and Clubs Go National

## Electronic Mail

## The Multiple Choice

## The Children's Computer School

## Popular Science

# REMEMBER:

## MORE THAN JUST ANOTHER PRETTY FACE.

Says who? Says ANSI.

Specifically, subcommittee X3B8 of the American National Standards Institute (ANSI) says so. The fact is all Elephant™ floppies meet or exceed the specs required to meet or exceed all their standards.

But just who is "subcommittee X3B8" to issue such pronouncements?

They're a group of people representing a large, well-balanced cross section of disciplines—from academia, government agencies, and the computer industry. People from places like IBM, Hewlett-Packard, 3M, Lawrence Livermore Labs, The U.S. Department of Defense, Honeywell and The Association of Computer Programmers and Analysts. In short, it's a bunch of high-caliber nitpickers whose mission, it seems, in order to make better disks for consumers, is also to make life miserable for everyone in the disk-making business.

How? By gathering together periodically (often, one suspects, under the full moon) to concoct more and more rules to increase the quality of flexible disks. Their most recent rule book runs over 20 single-spaced pages—listing, and insisting upon—hundreds upon hundreds of standards a disk must meet in order to be blessed by ANSI. (And thereby be taken seriously by people who take disks seriously.)

In fact, if you'd like a copy of this formidable document, for free, just let us know and we'll send you one. Because once you know what it takes to make an Elephant for ANSI . . .

We think you'll want us to make some Elephants for you.

## ELEPHANT.™ HEAVY DUTY DISKS.

Distributed Exclusively by Leading Edge Products, Inc., 225 Turnpike Street, Canton, Massachusetts 02021
Call: toll-free 1-800-343-6833; or in Massachusetts call collect (617) 828-8150. Telex 951-624.

# "ONLY COMMODORE HAS THE RIGHT COMPUTER FOR EVERY EDUCATIONAL NEED." —WILLIAM SHATNER

### VIC-20®

- So simple, a child can be running programs in minutes.
- Ideal for improving basic reading and arithmetical skills.
- Large easy-to-read characters.
- 16 screen color/4-sound generators.
- Real typewriter-style keyboard.
- Memory expandable to 32K.
- Easy-to-follow instruction guide and programming course.

**$299.95**

### PET® 4000 Series

- World's most widely used classroom computer.
- Our lowest priced, completely self-contained computers combining keyboard, display and processor in one unit.
- Memory expandable to a full 64K.
- Built-in BASIC language.
- 128 graphic character set.
- Crisp, easy-to-read 12-inch green phosphor display.

**$995**

### CBM™ 8032

- Students can use true business software, such as word processing, VisiCalc[1], the electronic worksheet and hundreds more.
- Professional 80-character phosphor screen.
- Easy-to-read 12" green phosphor screen.
- Print in Basic/full screen editing capabilities.
- Business-oriented numeric keypad.
- Full 32K memory expandable to 96K.
- Built-in BASIC.

1 VisiCalc is a Trademark of Personal Software Inc.

**$1495**

### SuperPET Computer

- Compatible with all CBM 8032 Software.
- Offers four (4) high-level languages developed by Waterloo specifically for teaching: including BASIC, APL, Pascal and FORTRAN.
- Waterloo: MicroEDITOR, 6809 Assembler & Linker programs.
- Provides 134K of memory and dual microprocessors.
- Built-in sophisticated hardware features IEEE-488 and RS-232 interfaces.
- Applications can be uploaded directly to Mainframe.
- 80 characters per line display.

**$1995**

## SENSATIONAL SCHOOL OFFER:

Buy 2 PET (16K or 32K) or 2 CBM computers. Get 1 absolutely free!
Offer good for a limited time only. SEE YOUR COMMODORE DEALER.

commodore COMPUTER

300 Valley Forge Square
681 Moore Road
King of Prussia, PA 19406

# TODAY


| | | |
|---|---|---|
| **LATEST NEWS** | 5 | **CompuServe at 25,000 Mark, Still Growing**<br>**Future View, Legislation Featured in New Offerings**<br>**Business News from Canadian Wire Service** |
| **PRODUCTS** | 6 | **All New Electronic Mail**<br>*EMAIL is a user-friendly electronic mail system that provides an inexpensive and efficient method for communicating.* |
| | 10 | **The Multiple Choice**<br>*Trivia? Analogies? Personality Profile? The Multiple Choice will put you to the test.* |
| | 12 | **Groups and Clubs Go National**<br>*Now you can belong to clubs that have nationwide memberships and that meet 24 hours a day.* |
| | 25 | **10 Can Play Interactive Decwars Game**<br>*Federation forces battle the dreaded Klingons for control of the galaxy.* |
| **INDUSTRY WATCH** | 9 | *Read brief news announcements within the microcomputing industry.* |
| | 28 | **School Offers Instruction in Computer Literacy**<br>*The Children's Computer School opens its doors to teach children and adults how to use personal computers.* |
| **CUSTOMER SERVICE** | 15 | **Q&A**<br>*Answers to the most frequently asked questions about CompuServe.* |
| **SUBJECT INDEX** | 16 | *A printed copy for you to tear out and keep.* |
| **LIFE, LOVE & TRIVIA** | 18 | **Ask Aunt Nettie**<br>*A sample of Aunt Nettie's weekly on-line column.* |
| **FUTURE** | 20 | **The Perfect Rose**<br>*The story of how an electronic club helped one person grow the perfect rose.* |
| **TECHNOLOGY** | 22 | **Menu Structure Takes on New Look**<br>*CompuServe's new menu structure promotes ease of use.* |
| **I.P. SPOTLIGHT** | 26 | **Videotex Lets Top Magazine Interact with Readers**<br>Popular Science *uses videotex to involve its readers.* |


The Cover:
A list of meeting times of CompuServe's groups and clubs.
Greg Miller, Photographer

**TODAY Magazine April 1982**

**Published by CompuServe Incorporated, An H&R Block Company**

**Editorial and Advertising Offices**
Information Service Division
5000 Arlington Centre Blvd.
P.O. Box 20212
Columbus, Ohio 43220

CompuServe is a trademark of CompuServe Incorporated

Radio Shack, TRS-80 and Videotex are trademarks of Tandy Corporation

Apple is a trademark of Apple Computers, Inc.

H&R Block is a trademark of H&R Block, Inc.

**Editorial Director**
Richard A. Baker
**Graphics & Operations Director**
Calvin F. Hamrick III
**Writers and Contributors**
Patricia H. Carro, Glady J. Fazio, Carole Houze Gerber, Peggy Garvey, Carol Rubin, H.K. Gard, Mary Vaughn, Aunt Nettie
**Photographers**
Greg Miller, Will Shively, Fern Eisner
**Creative Services**
Michael Goudy/Design, Dick Staat/Concept Art and Design, Jack Glover
**Printing Services**
National Graphics Corporation

Executive Management
CompuServe Incorporated
**Chairman of the Board**
Harry K. Gard
**President and Chief Executive Officer**
Jeffrey M. Wilkins
**Executive Vice President, Marketing**
Charles W. McCall
**Vice President and General Manager, Information Service Division**
John E. Meier
**Vice President, Finance; Secretary and Treasurer**
David C. Swaddling, CPA
**Executive Vice President and General Manager, Network Services**
Alexander B. Trevor

**Vice President, Research & Development** Douglas P. Chinnock; **Vice President, Network Operations,** William G. DuVall; **Vice President, Sales,** Robert J. Massey; **Senior Vice President, New Business Development,** George M. Minot; **Vice President, Sales, Network Services,** Joseph J. Porfeli; **Vice President, Human Resources,** Judy K. Scheck; **Controller,** Jeffrey T. Weisner, CPA.

For information about advertising and circulation, contact Calvin F. Hamrick III at the address listed above.

TODAY magazine reserves the right to accept or reject advertising and contributions of editorial content. The content of TODAY is protected by copyright 1982. All rights reserved.

Third Class Postage. Permit No. 1476 Paid at Columbus, Ohio 43220.

# Dear Reader,

The April issue of TODAY marks the magazine's first full year of publication as a quarterly. We appreciate the support our customers, subscribers and advertisers have given us in making TODAY a respected industry publication.

We are pleased to announce that starting with the July 1982 issue, TODAY will begin a bimonthly (every other month) publication schedule. The bimonthly schedule, along with an increasing number of editorial and advertising pages, will make the magazine an even more efficient information and advertising vehicle to our growing customer and subscriber bases.

Speaking of a growing customer base, you'll see in our Latest News that the CompuServe Information Service (CIS) has reached the 25,000 customer mark. CIS continues to grow faster than any other commercially available videotex service in the country.

Growth not only comes in numbers of customers but also in numbers of service and product offerings. Inside this issue of TODAY we've featured new services and many of our older ones which have recently expanded their offerings. For example, the benefits of EMAIL, our revamped electronic mail service, are covered in addition to new offerings from *Popular Science* magazine, including an innovative on-line car care clinic.

One of the areas where videotex offers the most exciting possibilities is what we call Special Interest Groups (SIGs). Think of a SIG as an electronic group or club; a club with members all over North America, and a club which meets 24 hours a day! We think you'll see the potential SIGs have; but if you're still having a little trouble, read a fictional account of how a SIG helped one person grow the perfect rose.

And if you're tired of just reading about what videotex has to offer and want to be a part of it, remember that CIS is sold in Radio Shack stores across the U.S. and Canada and through various manufacturers of computer equipment and software.

John E. Meier
Vice President and General Manager
Information Service Division

# Announcing

## A Major Breakthrough For Investors With Personal Computers

# Standard & Poor's Business/Financial Service

### Now offered by CompuServe®

From Standard & Poor's, one of the most respected firms in the financial community, you now have instant access to a wealth of information that can provide you with invaluable support for your investment decisions.

S&P's BUSINESS/FINANCIAL SERVICE gives you a quick and instructive overview of the activities of the more than 3,000 publicly-held corporations in which most investor interest is centered. The information can also be of great benefit in such diverse areas as sales, marketing, planning, and for uncovering employment opportunities and identifying key personnel at major companies.

Information on each company includes:

- *Financial Overview*—provides the latest available figures on net sales and net income, plus three years of earnings-per-share, and S&P's current year estimates when available. A five-year earnings-per-share growth rate is also shown, as well as the exclusive S&P Earnings and Dividend Ranking for Common Stocks.
- *Summary*—gives you a concise review of a company's operations.
- *Important Developments*—presents capsule accounts of developments that can significantly affect a company's profitability.
- *Business Summary*—describes the company's business activities, including a percentage breakdown of sales and profits by product/service line.
- *Company Roster*—furnishes headquarters address and telephone number, and names of directors, principal officers, transfer agents and registrars.

Through CompuServe, you can access the Standard & Poor's BUSINESS/FINANCIAL SERVICE FILE by company name, ticker symbol or by industry. This surprisingly low-cost service includes complete access instructions and data definitions.

# Let It Work For You Today!

To access, select Finance option.

**Standard & Poor's Corporation**, 25 Broadway, New York, N.Y. 10004

## COMPUSERVE AT 24,000 MARK, STILL GROWING

More than 24,000 people, from all walks of life and from all areas of the country, are now customers of the CompuServe Information Service (CIS).

The 24,000 figure reflects the actual number of paying customers and does not include demonstration accounts, media accounts or employees.

CIS started in August 1979 and reached the 10,000 customer mark in May 1981.

The geographic distribution of customers shows users in every state and throughout Canada. The largest concentration of customers are in and around New York City and the eastern seaboard, the "Silicon Valley" area of California and the areas around Los Angeles, populous areas of the South and industrial cities of the Midwest.

CIS provides information and entertainment services to owners of personal computers and computer terminals in the main subject areas of news, finance, entertainment, home and family information, electronic mail and personal computing.

Customers access CompuServe through a local telephone call in more than 300 U.S. cities and in Canada.

CIS is sold in Radio Shack Computer Centers and electronics stores throughout the U.S. and Canada and through various computer and data equipment manufacturers.

CIS can be used with all popular makes of personal computers and many computer terminals.

## FUTURE VIEW, LEGISLATION FEATURED IN NEW OFFERINGS

CompuServe announced the addition of two new information providers to its national videotex service for owners of personal computers: "Federal Reports" and "The Future File." Both are updated with new material on a biweekly basis.

In the Federal Reports section, subscribers can access articles and reports on recent legislation and its impact on the nation's people. Particular emphasis is placed on activities that affect the financial and investment climate of the United States.

Future File includes articles and interviews with futuristic authorities on such subjects as business, politics and the military that shed light on what might be expected from these arenas in the years to come. New technology, today's decisions, and their potential impact on tomorrow's society are discussed.

CompuServe subscribers can access this information for the standard fee of $5 per hour weekday evenings and all day Saturday, Sunday and holidays. Weekday daytime access is also available. CompuServe also offers the latest news from major newspapers and a national wire service, corporate stock and commodities information, home banking and shopping, electronic mail and real-time communications, computer games, family information and computing power for programming activities.

## BUSINESS NEWS FROM CANADIAN WIRE SERVICE

The Canadian Press (CP), Canada's national news-gathering cooperative, announced in Toronto the availability of its Business Information Wire (BIW) through the computer facilities of CompuServe Information Service.

Since 1973, CP has provided its Business Information Wire to Canada's major corporations and government agencies. Now, through CompuServe, individuals as well as corporations may gain access to the BIW from virtually any terminal, microcomputer or communicating word processor from anywhere in North America.

News stories are carried on the BIW throughout the day under 17 categories, such as finance, communications, labor and agriculture. Daytime subscribers will be able to read full-text news stories as they are transmitted for a monthly subscription fee of $50 and $22.50 an hour on line. During evening hours, once transmission has ceased for the day, home microcomputer users may use the full day's BIW news report for $5 an hour without subscription fee.

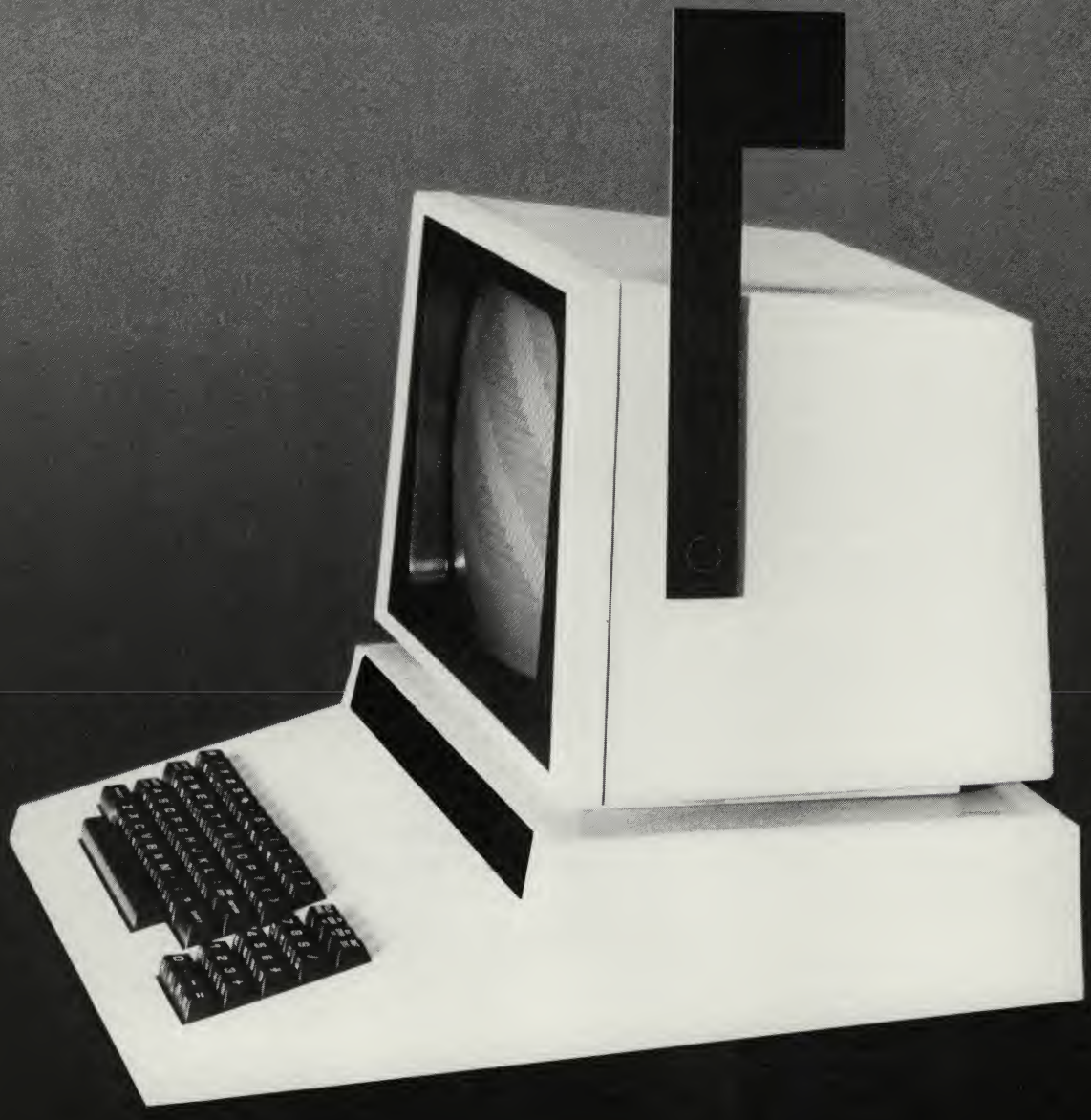
CompuServe has installed Canadian toll-free telephone access numbers in Toronto and Vancouver.

CP Marketing Manager Michael Reichmann said, "We are constantly looking for improved ways of making our Business Information Wire available to a wider audience. Availability through the CompuServe Information Service will allow corporate, government and private subscribers a more flexible means of using our service."

# ALL NEW ELECTRONIC MAIL

EMAIL is a user-friendly system that offers an inexpensive and efficient method for communicating.

*by Carole Houze Gerber*



WILL SHRETY

E. is not your everyday mail carrier. Bad weather, postal strikes and federal holidays don't slow him down.

He's not much for idle chatter, but he'll quickly tell you who your mail is from, what it's about and when it arrived.

He's considerate. An obviously full mailbox will not be stuffed to overflowing.

And—wonder of wonders—after you've read it, he'll throw away what you don't want and file the rest.

EMAIL, or electronic mail, is to the computer age what the Pony Express was to the frontier era: an innovative way to get there first and fastest.

CompuServe's newly-revamped electronic mail system is a logical, simplified and user-friendly system that offers an inexpensive and efficient method for communicating. Users access the EMAIL feature by first making a local phone call to hook into the CompuServe network. After logging on, electronic mail can be accessed directly through the Home Services, Business and Finance and Personal Computing menus.

EMAIL is stored by subject headings which also include the sender's name and the date sent, allowing the receiver to peruse his "mailbox" at a glance and select the order in which the items will be read. Each "mailbox" will store a maximum of 20 items, and those which do not receive the command to be filed will be deleted. No need to worry if you're the absent-minded type — you must respond to the question of filing with a "yes" or "no" to each piece of mail before dealing with the next. This method eliminates problems arising from users putting off, and then not recalling, the action taken on a particular piece of mail.

Under the revamped system, mail can be added to existing files or new files can be started, depending on the user's commands. In every instance, the user is given feedback on what action has been taken and EMAIL commands are consistent with the commands used in other areas. The electronic mail feature uses standard editors—ICS and FILGE.

Electronic mail is easy to use, but how practical is it? The cheapest phone call from Columbus to Los Angeles (after 5 p.m.) costs 42¢ for the first minute and 30¢ for each additional minute — for a grand total of $18.12 plus tax for a one hour call. While it's unlikely that the use of electronic mail would supplant such a long phone conversation, it would solve the problem — cheaply — of callers who continue to miss one another's calls.

Unlike other systems, CompuServe's does not require that both sender and receiver have computers. Two terminals are all that are needed with the CompuServe network. Inexpensive, portable terminals can be used by those on the go to connect with CompuServe almost anywhere and at anytime. Compared to overnight mail services — one of which charges upwards of $20 per item — the cost of using EMAIL is very attractive indeed.

Its speed, combined with the features of privacy, easy access and storage capabilities, may well make electronic mail one of the best communications options available.

HUG's
on line
with
CompuServe.

HUG is a Special Interest Group (SIG) of Heath users on the CompuServe Information Service. SIGs are active and growing groups of individuals who share a common interest and form an "electronic" club using the CompuServe Information Service as its communications medium. Share advice and exchange information with other Heath users across town or anywhere around the country.

We think you'll like the CompuServe Information Service: CB simulation, electronic mail, news wires, financial information, games, data bases, programming languages, big mainframe computer power and free data storage. All for a basic charge of only $5.00 an hour nights and weekends. All you need is your Heath computer, a modem and some inexpensive software.

CompuServe

CompuServe Information Service
5000 Arlington Centre Blvd.
Columbus, Ohio 43220

(614) 457-8650

# Call of the Wild

Have you noticed the more you play Adventure the wilder you become? For Adventure Cave veterans and newcomers alike, CompuServe provides the appropriate gear to help you through those hairy situations in Colossal Cave. For example there are maps, t-shirts, puzzles and posters . . . just the type of accessories you'll find helpful when slaying fiery dragons.

To order your Adventure items, send a message via Feedback (main menu item 5,User Information). Please allow 4-5 weeks for delivery. Order today!

**A. T-shirts:** Suitable for exploring caves and dangerous depths. Available in adult (small, medium, large, extra large) and childrens (small, medium, large) sizes; cotton/polyester blend. Colors: grey, light blue, red, tan, yellow, black and orange. Cost $8.95.

**B. ADVENTURE350 Map:** Conducts players through Adventure game maze; not guaranteed to bring success in video version. Black-ink-on-white-paper. Size 17 x 25". Cost $2.95.

**C. ADVENTURE751 Map:** Advanced version for Adventure aficionados; size 23 x 35". Black-ink-on-parchment. Cost $4.98.

**D. Full-color poster:** Provides Adventure inspiration to even the most travel-weary explorers. Size 18 x 24". Cost $5.95.

**E. Full-color Puzzle:** Suitable as the object of one's concentration when player is frustrated with video version. Features 500 interlocking pieces depicting an Adventure game confrontation between explorers and fiery dragon. Finished puzzle size is 16 x 20". Cost $8.95.

## CompuServe

5000 Arlington Centre Boulevard, Columbus, Ohio 43220

## SOCIETY INTRODUCES BANK-AT-HOME

Do you find that you just can't cope when the automatic teller eats your magnetic card on the second try? Have you ever risked life and limb to reach the bank before noon on Saturday, only to discover that the guy ahead of you in the drive-in teller is applying for a home mortgage? And does a ceramic piggy bank just cramp your style?

Take heart. The Information Delivery Society may have the answer.

The society exists to provide financial institutions with the means to test the waters of the world of home banking without investing heavily with dollars and time. It is the result of the efforts of three groups: United American Service Corporation, Stockholders Systems Incorporated and CompuServe Incorporated.

The society has been put together to provide the financial community a means of being able to get into the home delivery of electronic services, through pilot programs, instead of having to do it on its own. It eliminates the need to spend a lot of dollars and invest a lot of time developing software for home delivery systems.

Home banking is heavy-duty technology, but the society hopes to aid interested financial institutions by giving them hands-on experience at a minimal risk.

For a yearly fee, members will be able to explore the possibility and practicality of in-home and in-office banking using state-of-the-art equipment from computer equipment manufacturers.

Financial institutions the society hopes to reach are those interested in providing additional services to their existing customer base. However, because at this time terminals in the home are more exception than rule, banks are unwilling to put several million dollars and several years into developing the necessary software for home banking.

For a bank to invest several million dollars on its own and to invest several years to develop software to serve the needs of 500 to 1,000 customers out of thousands of customers they have is just not cost effective.

But the society hopes to walk around some of these stumbling blocks by educating financial institutions about the advantages of home banking and by allowing member institutions to gain valuable and practical experience through actual use.

To explain further the goals of the society, it is important to understand a little of just how in-home banking works. Suppose you want to pay a monthly electric bill via your home computer.

Turn on the computer and dial a local number to link into the CompuServe network. Select "bank-at-home" (or something similar) from the menu. Instead of remaining in the CompuServe database you are switched automatically to the bank's computer where you can instruct the system to pay the electric bill. Because the bank's computer is operating in a real-time mode, your account balance will reflect the payment immediately.

If the society has its way, and there is no reason to think otherwise, in-home banking could be a reality in many parts of the country as early as 1985.

At-home electronic banking. It's a relief to know that it could eliminate those long pay day lines at the local branch. But will we ever find a suitable replacement for those immortal words: "The check's in the mail"?

*by Glady J. Fazio*

## STARWRITER PRINTER HAS MANY FEATURES

Starwriter F-10 is the answer for the perfect daisy wheel printer, including such features as: low profile design (6 inches high) to fit easily into your system, industry-standard ribbon cartridges, 40 or 55 cps models, standard parallel or RS232-C interfaces (including ETX/ACK, X-ON/X-OFF) protocols, extensive built-in word processing functions that allow easy adaptability, uses plastic or metal wheels and low noise operation. A choice of friction feed or optional bidirectional tractor feed is available. Contact Leading Edge Products, 225 Turnpike St., Canton, Mass. 02021, (800) 343-6833.

## ELECTRONIC DELIVERY OF USDA REPORTS

Farm News Express has announced that it will provide electronic delivery of U.S.D.A. market reports. Farmers and others with an interest in current farm and wholesale markets will be able to access the information with a local phone call in over 300 locations in the U.S. and Canada.

Initially, the network will carry current growing area markets for most fruits and vegetables in the major U.S. farming areas. Supplies, market trends, truck rates, weather and wholesale market

*continued on page 30*

# THE MULTIPLE CHOICE

Trivia? Analogies? Personality Profile? The Multiple Choice will put you to the test.

*by Carol Rubin*

FERN EISNER

**Prof. Howard Millman reviews The Multiple Choice questions with his daughter.**

You want to attend graduate school, and wonder how you'd fare on the entrance exam. Your child has mastered reading, and he's anxious to show off his new skills. Or, what if the world's most accomplished trivia buff has nothing on you, and you want to prove it?

The answers can be found in one of CompuServe's home services offerings — The Multiple Choice (TMC).

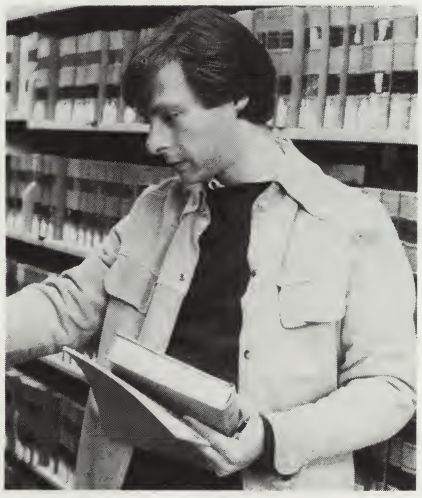
TMC, number eight on the Home Services menu, offers tests and games the entire family can enjoy together. It was designed that way by its creator, Howard Millman, a professor of educational psychology at the University of Maryland.

Millman had heard about CompuServe, and the idea of learning by computer intrigued him. He thought about the value of a program that would make learning fun *and* educational, and that families could enjoy together. He bounced some ideas off of friends and family, contacted CompuServe with a proposal, and TMC was born about a year ago.

Millman, with the help of family and friends, composes all TMC questions himself. A friend provides programming advice and helps him program TMC from his home.

A glance at the TMC menu shows plenty of choices. If it's pure fun you're after, play "Trivia Unlimited," which lets players compete against themselves and others by answering a wide variety of trivia questions. If your recall skills can stand a little brushing up, the 10-question warmup quiz is probably your best choice. But if you're the type who pores over little-known facts, the "sudden death" option is for you. Questions are much more difficult, and the scoring method truly tests your mettle: you keep answering questions until you've missed three; then the test ends and your score is compared with the top three scores by all other test takers.

The children can choose a TMC designed especially for them. "TMC for Kids!" has five tests and games that are fun and help perfect already-learned skills. "Silly Fill-Ins" asks kids seven and older to fill in missing words in a story. A sports quiz tests knowledge of basketball, baseball, soccer, football and tennis rules and terms. "J*U*M*B*L*E*D Words" asks players to recognize disguised words, while another game tests knowledge about the 50 states. And if that grade schooler of yours knows what color Kermit's bicycle was in "The Muppet Movie," they'll like "Trivia for Kids."



FERN EISNER

**Prof. Millman researches questions for The Multiple Choice at the University of Maryland library.**

In a more serious vein, Millman also created an intelligence quotient exam and one that provides some insights into who you are.

"The TMC Intelligence Test," while designed to be similar to an actual IQ exam, is not meant to be a substitute for one. But the results "should give you a fair estimate of how smart you are," Millman maintains.

"The TMC Personality Profile" was created based on general personality patterns, Millman says. Questions cause the test taker to look at his psychological, physical and spiritual self, and measure how he views relationships and decision making. At the test's end, the computer provides a chart that shows how well the test taker is caring for himself in each of eight areas examined.

Perhaps the most serious TMC category is "TMC Analogies," which simulates a national exam taken by graduate school applicants. Questions are close to the test in length, type of analogies and trick questions. Test takers can choose a practice quiz or pick the more difficult timed exam.

After investigating any of the TMC categories, Millman invites users to tell him what they thought via "TMC Feedback." Millman personally reads all the "letters" he receives and answers many of them.

"I get mostly good comments," he says. "People give me lots of pep talks. They say 'thanks, I needed that,' or 'keep up the good work.' "

Keeping up the good work is something Millman is always striving for. He's now in the process of programming 10 more TMC categories into the system, and a sneak preview reveals that there will be something for everyone to enjoy.

GREG MILLER

# GROUPS AND CLUBS GO NATIONAL

Now you can belong to clubs that have nationwide memberships and that meet 24 hours a day. SIG-nificant? You bet.

*by Carole Houze Gerber*

*Bill Byte has had a hard day. Herding software in the Silicon Valley takes the starch out of even the toughest computer cowboy. And although he's interested in keeping up with software developments for his TRS-80 home computer, the last thing he wants to do after work is wade through a technical journal or drive across town to a computer club meeting.*

*Luckily, he won't have to do either. Bill belongs to MNET 80, a special interest group (SIG) offered through the CompuServe Information Service. At his convenience, he can key into his SIG and learn the latest from the experts as well as his peers.*

*He can, that is, if his wife isn't using the computer to talk with her SIG, the NETWITS. Or if his daughter isn't "tuned in" to HAMNETS, a SIG for ham radio buffs. Fortunately, since all SIGs offer stored as well as interactive communication, Bill will not have missed anything when he finally does get his turn.*

Like the fictitious Bill Byte, the very real Bill Louden, product manager for personal computing services, is an enthusiastic SIG member. These electronic clubs offer something for everyone — novices and experts alike, he says.

"Instead of belonging to a local club, SIG members are joining organizations that are national or international in scope," he explains. "And regardless of the topic — from gardening to computers — system operators who are experts in the field are available to help you.

"Another important feature is that members can communicate as well with typical users like themselves," Louden adds. "Say I want to buy 'xyz' piece of software for my TRS-80. I ask if anyone else has ever used it. Three people respond that they have and it's no good. Another says he liked it. This isn't scientific consumer reporting, but it offers an honest appraisal of the product from those who are at about your own level of sophistication — their responses would certainly affect my decision."

Louden, whose job is to attract and market products specifically designed for the personal computer hobbyist, points out that the SIGs also benefit the companies which sponsor them.

"Some SIGs are started by companies that want to keep their customers abreast of new products and changes." he notes. "These companies can now serve their customers electronically with updates and save themselves the time and cost of mailing out large volumes of information. They can also use the SIG for informal market research."

Information conveyed on SIGs runs the gamut from very technical ("You have a farkled super utility disk... Did you hard-configure the fast clock support?") to the very chatty ("I just had my 95th birthday. That makes me the oldest computer operator alive."). As with any club, it serves a social as well as an informational function.

A *Better Homes and Gardens* SIG and a financial SIG are among the five new Special Interest Groups planned for 1982.

So what's the big attraction with these electronic clubs?

"SIGs offer the social interaction of the telephone, the technical information from a specialized journal and the open forum of the editorial page," Louden explains. "For those who just want to chat, there's a special CB (Citizen Band-like electronic mail) attached to every SIG on the CompuServe Information Service."

The message is clear: whether you're 19 and a novice or an experienced 95-year-old like MNET80 member Matt Ereskovic, CompuServe has got a SIG for you.

# Special Interest Groups on CompuServe

The number of Special Interest Groups (SIGs) that are making use of the CompuServe Information Service (CIS) keeps growing. A SIG is usually comprised of a group of individuals who share an interest in a particular subject and form a type of electronic club using the CIS as its communications medium. SIGs are fast becoming an easy and economical means of keeping up to date on the latest developments in a variety of interest areas. The following SIGs are currently active on the CompuServe Information Service:

**AVSIG** is the Aviation Special Interest Group. This group is organized for people involved in and/or interested in aviation to provide them a means to report potential hazards and discuss such things as new services and databases of interest. John Galipault is the SYSOP (System Operator) for this SIG which promises to grow quickly.

**CP-MIG** the CP/M™ Users is a recent addition to the SIG list. This group shares a common interest in this fast-growing and popular operating system.

**HAMNET,** a group of ham radio buffs, is CQing all interested OMs and YLs to join them in expanding their discussions beyond the airwaves through the phone lines and our computer.

**HUG** is an extremely active SIG established by owners of Heath microcomputers. The members of this group trade software information and tips on the use of their Heath equipment. HUG also has available an extensive database of programs.

**LDOS,** the LDOS users, are interested in the uses and applications of the advanced LDOS operating system for the TRS-80. They were organized by Galactic Software of Mequon, Wisc.

**MAUG** is the Apple Users Group. They are interested in all applications and uses of the Apple and invite any Apple owner or user to join.

**MCCONN** is a SIG established by MicroConnection to enable its customers to ask questions about hardware and get help on specific problems.

**MNET 11** is a group comprised of owners of the H11 and PDP11 family of microcomputers. The members of this group are primarily interested in discussing programming and applications for these computers.

**MNET80** is a TRS-80 Users Group that provides information and software for the TRS-80 line of microcomputers. Its membership includes software authors, many of whom have made their programs available to the membership at large.

**MPHOST,** the Multiplayer Host SIG, is open to any CIS user interested in participating in multi-player games, such as Space War and Decwars.

**MUSUS,** sponsored by the UCSD p-System Users' Society (USUS), is interested in promoting information about UCSD Pascal and its various applications. MUSUS also provides member-to-member and member-to-USUS communications including the exchange of programs written in UCSD Pascal.

**NETWITS** is a more loosely organized SIG group. Its publication, written by users who become acquainted through CompuServe's CB simulator, deals with a variety of subjects both of a technical and a general nature.

**QSD,** sponsored by Quality Software Distributors, is a group comprised of VTOS and ST80 users who have a wide range of software interests, particularly in software for the TRS-80 microcomputers. The main purpose of this SIG is to act as a feedback mechanism for QSD customers.

**RCA** is a SIG established by RCA primarily for use by its field representatives and store managers. It is also open to RCA equipment users as a feedback mechanism.

# Q & A

**In this column the CompuServe Customer Service Department answers some of the most frequently asked questions about the CompuServe Information Service.**

**Question:** I sent in a check last month to be applied to my account balance. Why am I still being billed on this month's statement for last month's amount?

**Answer:** In order for a payment to be credited to your account so that the amount due will not be carried over to the next statement, we must receive your payment before the 18th of the month. Make sure you send your payment soon enough so that we have a chance to receive and process it before the 18th to avoid confusion.

**Question:** I have sent feedback messages but still have not heard from your billing department about some questions I have about my account. When can I expect a response?

**Answer:** Inquiries to our billing department are handled on a first come first served basis. Please allow up to 10 working days for a response.

**Question:** How can I get more detail on what the charges are on my bill?

**Answer:** In response to customer demand for more billing detail, we now have a method for you to get a more detailed breakdown of recent and past charges. You can access this information on CIS under the User Information menu option 6, Reviewing Your Charges. If you do not have hard-copy capability, you can request, via the system, a printout of this information for a small additional charge.

**Question:** I've discovered your new program that shows me my billing detail (see previous answer). It's really terrific but what is a "Premium Program — PP" charge?

**Answer:** The "PP — Premium Program Charge(s)" code that you are asking about comes from a legend of such usage-indication codes that appears under the "Transaction/Session Analysis" section of the billing information program. "Premium Programs" are programs which incur extra charges for the user in addition to the connect time charge. Some examples of "Premium Programs" are MicroQuote (MQUOTE), Quick Quote (QQUOTE) and Energy Management (ENERGY). There is another code in that legend called "O — Other Charges/Purchases." Examples of these are purchases made through the Software Exchange (SOFTEX), line printer use, documentation or Art Gallery purchases, direct-bill invoicing charge and Prime Service minimums.

**Question:** My bill shows a transaction date of 1/16, but I was out of town on that date. Was someone else using my number?

**Answer:** Probably not. The "Transaction Date" that appears on your bill actually indicates the date that we total up your charges for the entire week ending on that date. The transaction date is always a Saturday and any charges appearing are a total of your usage, plus any purchases, for the week composed of the previous Sunday through the Saturday indicated by the transaction date.

TYMNET Access Tip: When accessing through a TYMNET telephone number enter one of following codes — CIS02, CIS03, CIS04, or CPS at the TYMNET PLEASE LOG IN or PLEASE TYPE USER NAME prompts. If CPS is used, enter the word WELCOME at the TYMNET PASSWORD prompt (you'll be prompted for your own personal password later).

*by H.K. Gard*

**Conundrum Answers**

1. The Multiple Choice
2. Decwars
3. Netwits
4. Menu
5. Electronic Mail
6. Bank-at-Home
7. Computer School
8. Popular Science
9. Electronic Clubs

# SUBJECT INDEX

The CompuServe Information Service subject index is updated constantly. For the latest list of subjects and services, access main menu item 5, CompuServe User Information, or Go IND-1.

For your convenience you may tear out and keep this printed subject index.


(Go 67 for quick access to page numbers in this index.)
**Access, public .....Go PCS-40**
**Access telephone numbers for CIS .....Go CIS-4**
**Accounting terminology .Go RSG-1**
**Adult education .....Go HOM-70**
**Adventure game .....Go HOM-60**
**Advertising (CIS Bulltn. Board):**
For sale .....Go HOM-30, PCS-30
Notices .....Go HOM-30, PCS-30
Want ads .....Go HOM-30, PCS-30
**Advertising, classified ads:**
Middlesex News .....Go MDN-24
S.F. Examiner .....Go SFE-12
S.L. Post-Dispatch ...Go SPD-1002
Washington Post .....Go TWP-500
**Advice:**
Aunt Nettie .....Go HOM-61
Columnists:
Cols. Dispatch .....Go CDP-48
Va. Pilot .....Go VPL-7
Washington Post ...Go TWP-52
**African weather .....Go CNS-17**
**Agricultural news .....Go CNS-14**
**Airline schedules, Atlanta area .....Go AJC-11**
**AMEX prices (MQUOTE) .Go FIN-20**
**Analogies test .....Go TMC-15**
**Archer Commodities ....Go FIN-10**
Commodity calendar .....Go ACR-1
Market commentary .....Go ACR-1
**Architecture .....Go NYT-12, Go TWP-41**
**Art and leisure**
Atlanta Journal .....Go AJC-12
Cols. Dispatch .....Go CDP-52
L.A. Times .....Go LAT-70
Minneapolis Star .....Go MST-10
New York Times .....Go NYT-12
S.F. Chronicle .....Go SFC-10
S.F. Examiner .....Go SFE-50
Washington Post .....Go TWP-38
**Art Gallery, line printer (go to Product Ordering in FEEDBK) ..Go CIS-4**
**Asian weather .....Go CNS-17**
**A.S.I. Monitor .....Go HOM-20**
**Associated Press News Access:**
Financial wire .....Go AJC-14, CDP-15, LAT-500 MST-70, SFC-4, SPD-1005 TWP-64, VPL-8
Regional (Ohio area) ...Go CDP-12
Sports .....Go AJC-14, CDP-14, LAT-500, MDN-12, MST-70, SFC-14 SFE-8, SPD-1005, TWP-
**Coffee news .....Go CNS-15**
**College, advanced placement in .....Go TCB-12**
**College planning .....Go TCB-10**
**Color graphics .....Go CIS-91**
**Columbus area:**
Business news .....Go CDP-15
College sports .....Go CDP-14
Entertainment .....Go CDP-17
High school sports .....Go CDP-14
Local government .....Go CDP-12
News .....Go CDP-12
Ohio .....Go CDP-12
Television listings .....Go CDP-17
**Columbus Dispatch ...Go HOM-10**
**Columnists:**
Advice:
Cols. Dispatch .....Go CDP-48
Middlesex News ....Go MDN-22
Va. Pilot .....Go VPL-7
Washington Post ...Go TWP-52
Aunt Nettie .....Go HOM-61
Raylux, financial .....Go FIN-52
Syndicated:
Atlanta Journal .....Go AJC-60
Columbus Dispatch .Go CDP-48
New York Times ....Go NYT-11
S.F. Chronicle .....Go SFC-9
S.F. Examiner .....Go SFE-10
VPL .....Go VPL-43
Washington Post ...Go TWP-31
Video information .....Go HOM-20
**Commentaries:**
Financial .....Go RFC-1
Future .....Go TFF-1
Investment .....Go INV-1
Video .....Go VIF-1
**Commodities calendar ..Go ACR-7**
**Commodities glossary Go ACR-230**
**Commodity News Service .....Go FIN-10**
Agricultural news .....Go CNS-14
Commodity prices .....Go CNS-12
Economic news .....Go CNS-1
Futures industry news ...Go CNS-1
Futures market prices ..Go CNS-12
General news .....Go CNS-15
Metals news .....Go CNS-15
Weather .....Go CNS-17
**CompuServe user information ..Go CIS-4**
**Comp*U*Star shop-at-home ...Go HOM-40**
**Computer club news ...Go PCS-50, PEM-4, TMA-9**
**Concentration game ...Go HOM-61**
**Consumer news:**
**Financial news, microcomputers ....Go TMA-24**
**Financial services .....Go FIN-20**
**Fireplaces, firewood ....Go GPO-9**
**Fitness .....Go GPO-5**
**Flight operations .....Go ASI-1**
**Food and food preparation:**
Articles .....Go LAT-93, TWP-52
Food and diet .....Go NYT-13
Food storage .....Go GPO-7
Foodborne illnesses .....Go GPO-7
For fitness .....Go GPO-5
Freezing .....Go GPO-7
Menus, meal planning ..Go BHG-1, HOM-20
Recipes .....Go BHG-1, MST-900
**Football (AP wire) .....Go APN-16**
**Football computer game .....Go HOM-60**
**For sale ads (CIS Bulletin Board) Go HOM-30, PCS-30**
**Furs game .....Go HOM-61**
**Futures industry news ..Go FIN-10**
**Futures prices .....Go CNS-12**
**Games, computer:**
Adventure .....Go HOM-60
Backgammon .....Go HOM-61
Blackjack .....Go HOM-60
Bridge .....Go HOM-60
Concentration .....Go HOM-61
Craps .....Go HOM-61
Eliza .....Go HOM-60
Fantasy .....Go HOM-60
Football .....Go HOM-60
Furs .....Go HOM-61
Go-Moku .....Go HOM-60
Hammurabi .....Go HOM-61
Magic Cube solution ...Go HOM-61
Scramble .....Go HOM-61
Space War .....Go HOM-60
Star Trek .....Go HOM-60
Trivia test .....Go TMC-1
**Gardening .....Go TWP-52**
**Gasoline, how to save ..Go GPO-6**
**Glossary, securities .....Go RSG-1**
**Gold futures prices ....Go CNS-12**
**Gold news .....Go CNS-15**
**Go-Moku game .....Go HOM-60**
**Grain prices .....Go ACR-1**
**Grains, oilseeds future prices ..Go CNS-12**
**Grains, oilseeds news .Go CNS-14**
**Hammurabi game .....Go HOM-61**
**Hardware reviews .....Go TMA-9**
**Health advice .....Go TWP-52**
**Health and fitness .....Go GPO-5**
**Hockey (AP wire) .....Go APN-16**
**M'polis Star and Tribune .....Go HOM-10**
**Month-to-date charges ...Go CIS-4**
**Mortgage, budgeting for Go GPO-4**
**Movie reviews:**
Atlanta Journal .....Go AJC-62
Columbus Dispatch .....Go CDP-17
CompuServe .....Go HOM-20
Los Angeles Times .....Go LAT-92
Minneapolis Star .....Go MST-800
New York Times .....Go NYT-12
S.F. Chronicle .....Go SFC-10
S.F. Examiner .....Go SFE-50
VPL .....Go VPL-60
Washington Post .....Go TWP-41
**Multiple Choice, the .....Go TMC-1**
**Names of users .....Go FIN-30, HOM-30, PCS-30**
**National Oceanic and Atmospheric Administration weather .....Go WEA-1**
**New England area .....Go MDN-1**
**New product news .....Go PSP-1, TMA-24**
**New services on CIS ...Go NEW-1**
**Newsletters:**
All .....Go PCS-10
Atari .....Go ATR-1
MicroSoft .....Go MCS-1
RCA .....Go RCA-1
Tandy .....Go TRS-1
**Newspaper indexes:**
Atlanta Journal .....Go AJC-1
L.A. Times .....Go LAT-1
Middlesex News .....Go MDN-13
Minneapolis Star .....Go MST-60
S.F. Examiner .....Go SFE-5
Washington Post .....Go TWP-63
**Newspapers, subscribe to .....Go CIS-75**
**News summaries:**
Cols. Dispatch .....Go CDP-9
Minneapolis Star .....Go MST-1
New York Times .....Go NYT-11
S.F. Chronicle .....Go SFC-4
S.F. Examiner .....Go SFE-5
Va. Pilot .....Go VPL-1
Washington Post .....Go TWP-10
**New York City area:**
Business news .....Go NYT-11
Dance reviews .....Go NYT-12
Music reviews .....Go NYT-12
News .....Go NYT-11
Radio .....Go NYT-12
Sports .....Go NYT-11
Television .....Go NYT-12
Theater reviews .....Go NYT-12
**SAT test information ...Go TCB-12**
**Satellite TV signals .....Go PSP-1**
**Science, medicine newsGo NYT-11**
**Scramble game .....Go CIS-61**
**Securities glossary .....Go RSG-1**
**Self-employment .....Go SBR-1**
**Shop-at-home .....Go HOM-40**
**Silly fill-ins (children) ..Go TMC-41**
**Silver futures prices ...Go CNS-12**
**Silver news .....Go CNS-15**
**Ski conditions (winter only) ....Go WEA-1**
**Small business reports .Go FIN-10**
**Smoking and health .....Go GPO-5**
**Software Exchange (SOFTEX) ..Go PCS-40**
**Software reviews Go PSP-1, TMA-9**
**Solution To Magic Cube .....Go HOM-61**
**South America weather Go CNS-17**
**Special Interest Groups:**
Access to .....Go HOM-50, PCS-50
Commercial ...Go HOM-50, PCS-50
Descriptions of Go HOM-50, PCS-50
General .....Go HOM-50
Hardware related .....Co PCS-50
Instructions ...Go HOM-50, PCS-50
Software related .....Go PCS-50
**Sports news:**
Associated Press .....Go APN-16
Atlanta Journal .....Go AJC-41
Columbus Dispatch .....Go CDP-14
Los Angeles Times .....Go LAT-30
Minneapolis Star .....Go MST-17
New York Times .....Go NYT-11
S.F. Chronicle .....Go SFC-14
S.F. Examiner .....Go SFE-8
Scores .....Go APN-16
VPL .....Go VPL-6
Washington Post .....Go TWP-21
**Sports quiz .....Go TMC-42**
**Standard & Poors .....Go FIN-20**
**Star Trek game .....Go HOM-60**
**State your capitals (children) ...Go TMC-44**
**Stevens Business Reports .....Go SBR-1**
**Stocks, bonds:**
MicroQuote .....Go FIN-20
Quick Quote .....Go FIN-20
Raylux advisory .....Go FIN-52
**Subscribe to all newspapers ...Go CIS-75**
**Sugar futures prices ...Go CNS-12**
**Tandy Corp. news .....Go TRS-1**
**Tax advice .....Go TWP-13**
**Technical jobs .....Go TWP-500**

U.S.: .....Go AJC-14, CDP-12, LAT-500, MDN-12, MST-70, SFC-4, SFE-6, SPD-1005, TWP-64, VPL-5
Washington: .....Go AJC-14, CDP-12, LAT-500, MDN-12, MST-70, SFC-4, SFE-6, SPD-1005, TWP-64, VPL-5,
World news: .....Go AJC-14, CDP-12, LAT-500, MDN-12, MST-70, SFC-4, SFE-6, SPD-1005, TWP-64, VPL-5
**Atari Newsletter .....Go ATR-1**
**Atlanta area .....Go AJC-63**
**Atlanta area airline schedules .Go AJC-11**
**Atlanta Journal Constitution .....Go HOM-10**
**Automotive information .Go CPO-6, PSC-1**
**Autos, buying:**
Middlesex News .....Go MDN-24
S.F. Examiner .....Go SFE-12
S.L. Post-Dispatch ...Go SPD-1002
Washington Post .....Go TWP-500
**Aviation Safety Institute .....Go HOM-20**
ASI Monitor .....Go ASI-10
Human factors .....Go ASI-14
Safety tips .....Go ASI-13
**Aviation weather .....Go WEA-1**
**Banking, electronic ...Go HOM-40**
**Baseball (AP wire) .....Go APN-16**
**Beef prices .....Go CNS-1**
**Better Homes & Gardens .....Go HOM-20**
**Billing information .....Go CIS-4**
**Blackjack game .....Go HOM-60**
**Book reviews:**
Los Angeles Times .....Go LAT-70
New York Times .....Go NYT-12
Washington Post .....Go TWP-41
**Bridge game .....Go HOM-60**
**Budgeting, home .....Go GPO-4, HOM-80**
**Bulletin Board Go HOM-30, PCS-30**
**Business news:**
Columbus Dispatch .....Go CDP-15
CompuServe .....Go FIN-10
Los Angeles Times .....Go LAT-15
New York Times .....Go NYT-11
S.F. Chronicle .....Go SFC-13,
S.F. Examiner .....Go SFE-9
St. Louis Post-Dispatch .....Go SPD-1005
VPL .....Go VPL-8
Washington Post .....Go TWP-10
**Business Outlook .....Go RBO-1**
**Business, small .....Go FIN-10**
**Canning, home .....Go GPO-7**
**CB Radio Simulation ..Go HOM-30, PCS-30**
Instructions ...Go HOM-30, PCS-30
Introduction ...Go HOM-30, PCS-30
**Cameras .....Go PSP-1**
**Car care .....Go PSC-1**
**Cattle prices .....Go CNS-1**
**Changing terminal parameters .....Go CIS-4**
**Changing terminal type ..Go CIS-4**
**Changing your password .Go CIS-4**
**Charges, monthly user ...Go CIS-4**
**Child care .....Go GPO-8**
**Children's tests and games .....Go TMC-27**
**CIS command summary ..Go CIS-4**
**Citizen's Band Radio Simulator ..Go HOM-30, PCS-30**
**Civil Service news .....Go VPL-5**
**Classified Ads:**
Middlesex News .....Go MDN-24
S.L. Post-Dispatch ...Go SPD-1002
S.F. Examiner .....Go SFE-12
Washington Post .....Go TWP-500
**Cocoa futures prices ...Go CNS-12**
**Cocoa news .....Go CNS-15**
**Coffee futures prices ..Go CNS-12**
Home .....Go TWP-52
Software .....Go PSP-1
**Continuing education ..Go TCB-13**
**Copper futures prices ..Go CNS-12**
**Copper news .....Go CNS-15**
**Cotton futures prices ..Go CNS-12**
**Cotton news .....Go CNS-14**
**Coupons/refunding .....Go TRB-1**
**Currency futures prices Go CNS-12**
**Current rates on CompuServe ..Go CIS-4**
**Database, how to use ....Go CIS-4**
**DEFAULTS, setting .....Go CIS-4**
**Defense .....Go LAT-60, VPL-5**
**Economic news .....Go FIN-10**
**Editorials:**
Columbus Dispatch .....Go CDP-16
Los Angeles Times .....Go LAT-80
Middlesex News .....Go MDN-20
New York Times .....Go NYT-11
S.F. Examiner .....Go SFE-10
VPL .....Go VPL-43
Washington Post .....Go TWP-29
**Electronic banking ....Go HOM-40**
**Electronic mail .....Go FIN-30, HOM-30, PCS-30**
**Electronic shop-at-home .....Go HOM-40**
**Electronic subscriptions to all newspapers .....Go CIS-75**
**Electronics, what's new in .....Go PEM-1, PSP-1**
**Eliza program .....Go HOM-60**
**EMAIL Go FIN-30, HOM-30, PCS-30**
Instructions ...Go FIN-30, HOM-30, PCS-30
**Emergencies, car related .....Go GPO-6**
**Energy conservation ...Go GPO-9, PSE-1**
**Energy news .....Go CNS-15**
**Energy savers .....Go GPO-9, MST40, PSE-1**
**Entertainment:**
Columbus Dispatch .....Go CDP-17
CompuServe .....Go HOM-60
Los Angeles Times .....Go LAT-70
Middlesex Daily News ..Go MDN-13
Minneapolis Star .....Go MST-800
New York Times .....Go NYT-12
S.F. Chronicle .....Go SFC-10
S.F. Examiner .....Go SFE-50
VPL .....Go VPL-7
Washington Post .....Go TWP-38
**European weather .....Go CNS-17**
**FAA service difficulty reports ..Go ASI-12**
**Fantasy game .....Go HOM-60**
**Fashions .....Go NYT-13**
**Federal agency reports .Go FED-1, TWP-34**
**Federal contracts .....Go FED-1**
**Federal gov't news ....Go TWP-34**
**Federal News Service ...Go FED-1**
**Federal publications ....Go FED-1, GPO-1**
**Federal regulations .....Go FIN-10**
**Federal Reports .....Go FED-1**
**Feedback, CIS .....Go CIS-4**
**Feedback, Archer Commodities .....Go ACR-11**
**Feedback, The College Board ..Go TCB-5**
**Feedback, The Micro Advisor ..Go TMA-500**
**Feedback, The Multiple Choice .....Go TMC-31**
**Feedback, New York Times .....Go NYT-15**
**Feedback, San Francisco Examiner .....Go SFE-10**
**Feedback, The Washington Post .....Go TWP-99**
**FILGE instructions .....Go CVP-23**
**Financial advice .....Go TWP-13**
**Financial aid for college Go TCB-14**
**Financial information ...Go FIN-20**
**Financial instrument futures prices .....Go CNS-12**
**Home decorating .....Go NYT-13**
**Home finance .....Go HOM-80**
**Home information .....Go HOM-1**
**Home management programs:**
Amortize a loan .....Go HOM-80
Balance your checkbook .....Go HOM-80
Calculate your net worth .....Go HOM-80
Calculate your next raise .....Go HOM-80
**Homes, buying .....Go TWP-500**
**Indexes, newspapers:**
Atlanta Journal .....Go AJC-1
L.A. Times .....Go LAT-1
Middlesex News .....Go MDN-13
Minneapolis Star .....Go MST-60
S.F. Examiner .....Go SFE-5
Washington Post .....Go TWP-63
**Industrial Outlook .....Go RSG-1**
**Intelligence test .....Go TMC-28**
**International business .Go TWP-13**
**Investment news .....Go FIN-10**
**Investment News & Views .....Go INV-1**
**Investments-MicroQuote Go FIN-20**
**IQ test .....Go TMC-28**
**Jobs, professional & technical:**
Middlesex News .....Go MDN-24
S.F. Examiner .....Go SFE-12
S.L. Post-Dispatch ...Go SPD-1002
Washington Post .....Go TWP-500
**Jumbled words test ....Go TMC-43**
**Letters to the Editor:**
Columbus Dispatch .....Go CDP-16
New York Times .....Go NYT-11
S.F. Examiner .....Go SFE-10
VPL .....Go VPL-43
Washington Post .....Go TWP-29
**Livestock prices .....Go ACR-1**
**Livestock, poultry futures prices .....Go CNS-12**
**Livestock, poultry news Go CNS-14**
**Los Angeles area:**
Art calendar .....Go LAT-70
Calendar of events .....Go LAT-70
Financial news .....Go LAT-15
Sports .....Go LAT-30
Theater .....Go LAT-70
Weather .....Go LAT-100
**Los Angeles Times ....Go HOM-10**
**Magic Cube solution ..Go HOM-61**
**Manufacturer's newsletters:**
All .....Go PCS-10
Atari .....Go ATR-1
MicroSoft .....Go MCS-1
RCA .....GO RCA-1
Tandy .....Go TRS-1
**Marine weather .....Go WEA-1**
**Market prices .....Go FIN-20**
**Massachusetts area ...Go MDN-12**
**Meal plans .....Go HOM-20**
**Medicine, science news Go NYT-11**
**Metals futures prices ..Go CNS-12**
**Metals prices .....Go ACR-1**
**Microcomputers:**
Advice .....Go TMA-1
Atari .....Go ATR-1
Financial news .....Go TMA-24
Future .....Go TFF-1
General .....Go PCS-10
Microsoft .....Go MCS-1
News .....Go MST-20
RCA .....Go RCA-1
Tandy .....Go TRS-1
What's new in .....Go TMA-24
**MicroQuote .....Go FIN-20**
Instructions .....Go FIN-20
**MicroSoft Newsletter ...Go MCS-1**
**Middlesex Daily News .Go HOM-10**
**Minneapolis area:**
Business news .....Go MST-70
Calendar of events .....Go MST-10
Local suburban news ..Go MST-700
News .....Go MST-70
Restaurants .....Go MST-10
Sports .....Go MST-17
Theater .....Go MST-10
**New York Times .....Go HOM-10**
**NOAA weather .....Go WEA-1**
**North American weather .....Go CNS-17**
**Notices (CIS Bulletin Board) ...Go HOM-30, PCS-30**
**Nutritional analysis .....Go BHG-1**
**NYSE prices (MQUOTE) .Go FIN-20**
**OTC stock prices (MQUOTE) ...Go FIN-20**
**Password, how to change Go CIS-4**
**Personal computing area on CIS Go PCS-60**
**Personal finance .....Go GPO-1, HOM-80, TWP-13**
**Personality profile .....Go TMC-17**
**Photography .Go PSP-101, TWP-52**
**Pilot information .....Go HOM-20, WEA-1**
**Pilot weather .....Go WEA-1**
**Popular Electronics .....Go PEM-1**
**Popular Science:**
Energy .....Go PSE-1
New products .....Go PSP-1
Photography .....Go PSP-1
Satellite TV .....Go PSP-1
Software reviews .....Go PSP-1
**Pork prices .....Go CNS-1**
**Precious metals futures prices .....Go CNS-12**
**Precious metals news ..Go CNS-15**
**Prescription medicine ...Go GPO-5**
**Professions .....Go TWP-500**
**Programs from users ...Go PCS-40**
**Public access .....Go PCS-40**
**Quick Quote .....Go FIN-20**
**Rates, C.I.S. Users' .....Go CIS-4**
**Raylux Associates .....Go FIN-52**
**RCA Newsletter .....Go RCA-1**
**Real estate, buying:**
Middlesex News .....Go MDN-24
S.F. Examiner .....Go SFE-12
S.L. Post-Dispatch ...Go SPD-1002
Washington Post .....Go TWP-500
Real estate news and advice:
S.F. Chronicle .....Go SFC-11
VPL .....Go VPL-8
Washington Post ...Go TWP-13
**Rebates .....Go TRB-1**
**Recipes .....Go BHG-1**
**Recordkeeping, home Go GPO-228**
**Refundle Bundle .....Go TRB-1**
**Reviews, hardware .....Go TMA-9**
**Reviews, movie:**
Atlanta Journal .....Go AJC-62
Columbus Dispatch .....Go CDP-17
CompuServe .....Go HOM-20
Los Angeles Times .....Go LAT-92
Middlesex News .....Go MDN-21
Minneapolis Star .....Go MST-800
New York Times .....Go NYT-12
S.F. Chronicle .....Go SFC-10
S.F. Examiner .....Go SFE-50
Virginia Pilot .....Go VPL-60
Washington Post .....Go TWP-41
**Reviews, software .....Go PSP-1, TMA-9**
**St. Louis Post-Dispatch Go HOM-10**
**San Francisco area:**
Bay area news .....Go SFE-7
Business news .....Go SFC-9
Entertainment .....Go SFE-50
Events .....Go SFE-61
Exhibits .....Go SFE-11
Marin County news .....Go SFE-7
News .....Go SFC-4, -11, SFE-7
Night life .....Go SFC-7
Obituaries .....Go SFE-7
Peninsula area .....Go SFE-7
People section .....Go SFC-8
Sports .....Go SFC-5, SFE-8
Television .....Go SFE-50
Theater .....Go SFE-50
Weather .....Go SFC-1
**San Francisco Chronicle .....Go HOM-10**
**San Francisco Examiner .....Go HOM-10**
**Telephone access .....Go CIS-4**
**Television reviews:**
Columbus Dispatch .....Go CDP-17
New York Times .....Go NYT-12
Washington Post .....Go TWP-38
**Terminal parameters, changing Go CIS-4**
**Terminal type, changing .Go CIS-4**
**Tests, interactive .....Go TMC-4**
**Tests, preparing for the SAT ...Go TCB-12**
**The College Board**
Adult education .....Go TCB-5
Choosing a college .....Go TCB-12
Financial aid .....Go TCB-12
Publications of .....Go TCB-5
SAT test information ....Go TCB-12
**The Future File .....Go TFF-1**
**The MicroAdvisor .....Go TMA-1**
**The Multiple Choice .....Go TMC-1**
**The Refundle Bundle ....Go TRB-1**
**TMC for kids! .....Go TMC-27**
**Trading, commodities ...Go FIN-10**
**Travel .Go NYT-13, SFC-11, TWP-52**
**Trivia for kids .....Go TMC-45**
**Trivia quizzes .....Go TWP-52**
**Trivia unlimited test ....Go TMC-16**
**United American Bank .Go HOM-40**
**U.S. News:**
Columbus Dispatch .....Go CDP-12
Los Angeles Times .....Go LAT-40
Minneapolis Star .....Go MST-70
New York Times .....Go NYT-11
S.F. Chronicle .....Go SFC-4
S.F. Examiner .....Go SFE-6
VPL .....Go VPL-1
Washington Post .....Go TWP-10
**USDA grades .....Go GPO-10**
**USDA standards:**
Meat .....Go GPO-1340
Poultry .....Go GPO-1405
**Used cars, how to buy ..Go GPO-6**
**User directory .....Go FIN-30, HOM-30, PCS-30**
**User information .....Go CIS-4**
**User's programs .....Go PCS-40**
**Value Line Database II ..Go FIN-20**
**Video information .....Go VIF-1**
**Videotex, views on .....Go CVP-1**
**Viewpoint, CompuServe ..Go CIS-4**
**Virginian-Pilot and The Ledger-Star ...Go HOM-10**
**Want ads (CIS Bulletin Board) ..Go HOM-30, PCS-30**
**Washington, D.C. area:**
Art reviews .....Go TWP-41
Business news .....Go TWP-13
Leisure sports .....Go TWP-52
Music reviews .....Go TWP-41
News .....Go TWP-10
Nightclubs .....Go TWP-49
Restaurant reviews .....Go TWP-49
Television .....Go TWP-38
Weather .....Go TWP-28
**Washington Post .....Go HOM-10**
**Weather:**
U.S. (access AP U.S. wire)
African weather .....Go CNS-17
Asian weather .....Go CNS-17
Aviation weather .....Go WEA-1
European weather .....Go CNS-17
Extended forecasts .....Go WEA-1
North American weather Go CNS-17
South American weather Go CNS-17
Sports forecasts .....Go WEA-1
State forecasts .....Go WEA-1
**What's New .....Go CIS-4**
**Wheat prices .....Go CNS-1**
**Wire service news:**
**(see Associated Press access)**
**World news:**
Los Angeles Times .....Go LAT-60
Minneapolis Star .....Go MST-70
New York Times .....Go NYT-11
S.F. Chronicle .....Go SFC-4
S.F. Examiner .....Go SFE-6
VPL .....Go VPL-5
Washington Post .....Go TWP-10

# Ask Aunt Nettie

**Aunt Nettie's on-line column can be found under Games and Entertainment on the Home Services menu. Here are some selections from Aunt Nettie columns of the past:**

Dear Aunt Nettie,
I have been a computer addict ever since I saw my first micro. After spending so much time with our electronic wonders, my ability to communicate with non-computer people has dwindled to nothing. Now I have met a non-computerist who I actually get along with but I'm afraid that she is going to leave me due to overexposure to computers. What can I do to get back in tune with people and still be in touch with my beloved computer?
— Overexposed

*Dear Overexposed,*
*Join a monastery.*
*— Aunt Nettie*

Dear Aunt Nettie,
My friend is an investigative reporter for Jack Anderson. He says that he has never cried before. I wonder if this is possible to never ever cry. What do you think?
— Ed

*Dear Ed,*
*Wonder if he's ever chopped onions?*
*— Aunt Nettie*

Dear Aunt Nettie,
I am 16 years old and I am in love with someone who is 13. She loves me too but I am thinking, she has a whole life ahead of her and I will be in college in two years; should I let her go?
— Help

*Dear Help,*
*E-gads . . . Life's too short to worry 'bout such things. If you're having a good time together, then enjoy your relationship, and let time be the deciding factor.*
*— Aunt Nettie*

Dear Aunt Nettie,
I've tried recently to get some detailed information about my account. How can I get a quick response?
— Frustrated

*Dear Frustrated,*
*Recently the CompuServe Information Service put a new monthly billing program on-line. You can access it by typing Go CIS-4 from the main menu and then selecting option 6. Oh boy . . . you'll be surprised at the questions that can be answered from this new MONTH program! I think it's super. Let me know what you think.*
*— Aunt Nettie*

Dear Aunt Nettie,
People are always criticizing me for this or that. If it's not my breath, it's the way I work, or talk, or dress. I'm at the end of my rope.
— Depressed

*Dear Depressed,*
*How much do you charge to haunt a house?*
*— Aunt Nettie*

Dear Aunt Nettie,
What is the strangest marriage you've ever hear of?
— Weird

*Dear Weird,*
*The marriage in 1976 of a Los Angeles secretary named Jannene Swift to a 50-pound rock certainly ranks in the top five! This ceremony was witnessed by more than 20 people!! Hmmmmmmmm, I didn't know my husband was married before . . .*
*— Aunt Nettie*

Dear Aunt Nettie,
I have a wager on this question and I hope you can answer it for me. Could you please tell me who starred in the movie "Reefer Madness"? If I am correct, it is the Marx Brothers and the film was made in the thirties.
— Would Like To Be $200 Richer

*Dear Would Like To Be,*
*Would you get $100 for being half right? No, the film did not star the Marx Brothers. The film was created in the thirties as a serious propaganda flick used to scare the living daylights out of drug users. The reason you may be associating humor with it probably is due to the ridiculous tactics employed. Sorry . . .*
*— Aunt Nettie*

# C O N U N D R U M

The coming of Spring has inspired us to give a fresh look to Conundrum. Starting with this issue, we will vary the type of puzzle so that you can be challenged to reach new heights of puzzle-solving expertise.

This time, we are featuring our version of the word jumble that you're all familar with from your local newspaper. Answers to the puzzle are all contained in this issue of TODAY.

Unscramble the eight scrambles listed below. Use one letter per space, including squares, to form the eight TODAY-related answers. Good luck!

1. HHMLLICTTUPCOEIEE
2. CERWSAD
3. WTTNEIS
4. EMNU
5. IECLCLANTEOIMR
6. EHTAABMKNO
7. CCTHLSOMUROOPE
8. LRSCCOPEIEPAUN
9. Now arrange the letters contained within the squares to form the bonus answer. **Clue to bonus answer: A shocking suit.**

Answers on page 15

# THE PERFECT ROSE

A rose is a rose is a rose ... unless, of course, it's the perfect rose.

*by Patricia H. Carro*

Ms. Rosie Petaldust, 67, was presented with the special Gold Award recently at the International Rose Trials in Portland, Oregon, for her work in creating what judges have termed the "perfect rose." Ms. Petaldust, a resident of Marysville, Ohio, discussed her precedent-shattering achievement with members of the media following the award presentation. A report follows:

*Media:* Ms. Petaldust, did you have any inkling you would win the coveted Gold Award... and in so spectacular a manner?

*Rosie:* Absolutely. This is the first time in history that such a rose has been cultivated and I certainly expected to be recognized for my achievement. The Rose Trials Committee, recognizing excellence in my Floribunda Rose, was most correct in awarding me the prize.

*Media:* We've gathered that you put in many long hours in your rose garden, up to your elbows in soil and earthworms, trying to create this rose.

*Rosie:* On the contrary. The most significant work was done indoors, on the CompuServe Information Service (CIS). I'm a member of a special interest group — SIGs, we call them — known as the Rosarian Consortium. Our members are rose growers throughout the country. With information I obtained there, my Floribunda Rose just... bloomed. And here I am.

*Media:* Rosegrowers Consortium ... SIGs ... CompuServe Information Service... could you be more specific?

*Rosie:* Certainly. First, I conducted an electronic information search of the historical reference data base. I knew there had been experiments in hybridization, so I entered key information — "Poulsen's Copper" to indicate the particular rose and research in which I was interested. There had been a number of experiments over the years, and I knew I was very close to discovering the key to growing my perfect rose.

My rose, by the way, is so hardy it can grow in any climate. It flowers year-round, with superior petallage. Its red color is intense and vibrant. And in quite another breakthrough, ladies and gentlemen, it lacks thorns. Perfect, as I said.

*Media:* You grew it based on information you learned on CIS?

*Rosie:* Not so fast, young man. We may be in the Computer Age, but rose growing still takes time. After searching the data base, I was acutely aware of a missing link in my information. But since I'm a member of the Rosarian Consortium, I decided to take full advantage of its resources. Within my club, I have access to electronic news reports, periodicals, wire services and various newsletters. Rose News provided me with a great deal of useful information, but I was still missing that vital data link.

*Media:* Obviously, you kept digging... er, searching for the answer.

*Rosie:* I sent an electronic message to the Rosarian Consortium Administrator, a well-known rose authority who acts as our SIG coordinator. Meanwhile, I checked the CIS Bulletin Board for news, then described my project and asked for information — to be left on the Board, of course — from anyone, anywhere in the world who could furnish me with that last, all-important element which, by the way, concerned one of the seedlings in my experiment.

The Administrator left an electronic message which helped somewhat and when I checked the Bulletin Board again, I found several replies. One, from a Rosarian in India — where roses grow wild in the mountainous Himalayan range — proved to be the key.

*Media:* So it was a simple matter of taking that information and putting your theories into practice?

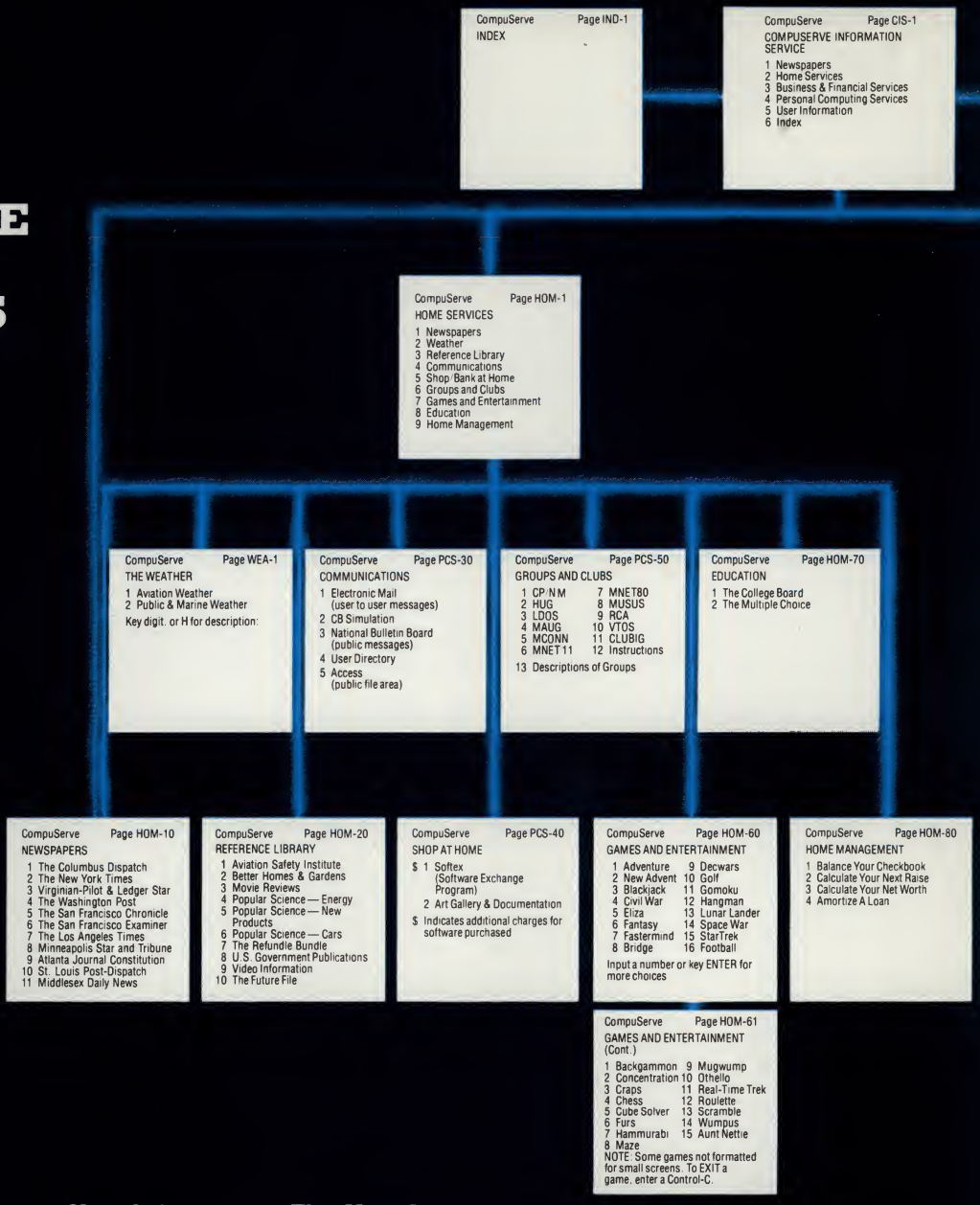
*Rosie:* Never simple... but it was made much easier by the CIS "Shop at Home" service, which allowed me to electronically purchase certain growing aids. My fertilizer, for instance, was sent to me by a store located in Albany, N.Y., the only store to supply the rare product.

Thereafter, I tended my precious Floribunda, nurturing it through small casualties including a close brush with the dreaded Black Spot disease. I entered the International Rose Trials only at the last minute, thinking my "Flori" might not be blooming satisfactorily in time. Luckily, I was able to save considerable time and make the entry deadline by making my application to the competition electronically using CompuServe's electronic mail.

*Media:* We understood that Trial officials have named your rose, "Petaldust Hardy" in honor of its cultivator. What's your reaction? And what is the secret of your perfect rose?

*Rosie:* I could not have accomplished this feat without CIS and my SIG, the Rosarian Consortium. As for my secret... I'll let you make your own discoveries, on CompuServe!

# MENU STRUCTURE TAKES ON NEW LOOK, PROMOTES EASE OF USE




As part of CompuServe's continuing effort to make its information service responsive to customers' needs, a new menu structure has been put into effect.

All of the information contained on CompuServe has been organized under 6 primary interest sections: 1. Newspapers. 2. Home Services 3. Business and Financial Services 4. Personal Computing Services 5. User Information
6. Index.

*Newspapers.* Our electronic newspapers are now directly accessible from the new main menu as selection 1. All eleven newspapers can also be reached from the Home Services menu.

*User Information.* The User Information section contains material pertinent to your general use of the information service including Feedback, documentation and product ordering, What's New, a general command summary as well as intructions for verifying and /or altering your terminal defaults, password and credit card information. Detailed billing information, current access rates and telephone numbers are located here.

*Index.* The Index section contains the most up-to-date version of our Subject Index.

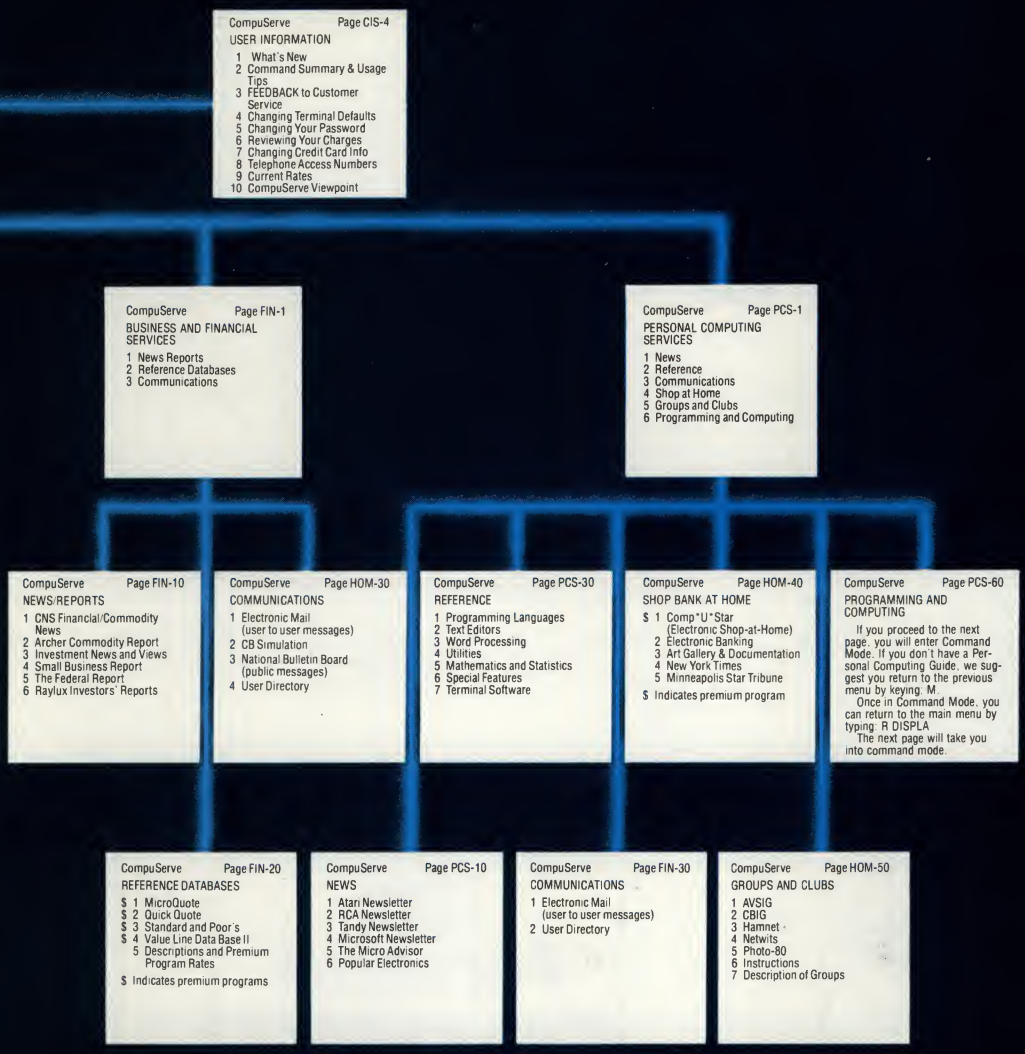
*Home Services.* The Home Services sections contains general and family-related information and services. Currently, these include:

1. Newspapers.

2. Weather: This includes both aviation and public/marine weather.

3. Reference Library: Under this menu you can find general interest newsletters from such information providers as the Aviation Safety Institute, magazines such as *Better Homes & Gardens*, and the Refundle Bundle.

4. Communications: A com-




munications area has been placed in each of the three main service sections to enable you to have access to these often-used offerings as easily as possible. This communications area includes Electronic Mail, CB, the National Bulletin Board and the on-line User Directory.

5. Shop/Bank at Home: Electronic banking and shopping offerings can be found under this choice including, among others, Comp-U-Star and Bank-at-Home.

6. Groups and Clubs: The groups and clubs available under Home Services are general interest groups that share an interest in non-technical subjects.

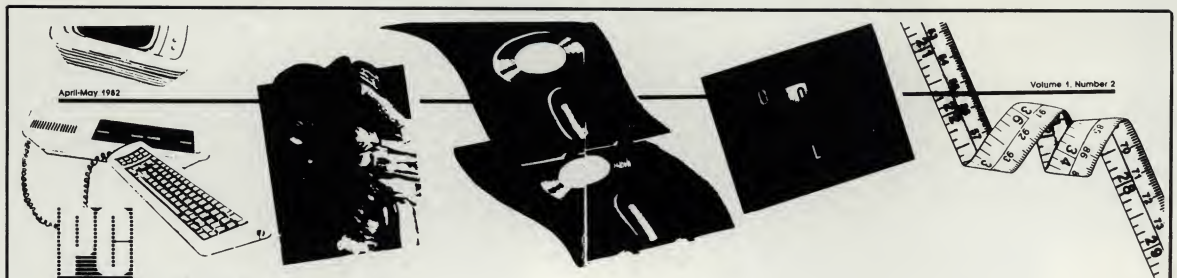
7. Games and Entertainment: The games menu contains your old favorites, like Adventure and football, in addition to games that were previously available on other areas of the service. Interactive games, such as Decwars and Space War, can be reached through this menu.

8. Education: The education section contains the College Board that is a must for any prospective college student and the Multiple Choice where you can test your trivia skills and be challenged by many types of self development tests.

9. Home Management: In this section are grouped several very handy home-management programs for doing such otherwise tedious jobs as balancing your checkbook or figuring out a loan schedule.

*Business and Financial Services.* The Business and Financial Services section includes all business and financial news reports, updated stock quotes and business reference databases including, among others, MicroQuote and Standard and Poor's.

*Personal Computing Services.* The Personal Computing Services section includes news, programming languages, a word processor, a Software Exchange program for purchasing software, computer related groups and clubs and an area for programming activities.



April-May 1982

Volume 1, Number 2

# IN THIS ISSUE

**Cover Story**

*Boca Diary/David Bunnell* ..... 21
A report on PC's pilgrimage to the PC's birthplace — including an exclusive interview with Don Estridge, head of IBM's Personal Computer project

**IBM Eye**

*Cranking Up The Software Machine/Jim Strathman* ..... 38
On-site report: IBM's software publishing operation

**Competition**

*High Noon/Carl Warren* ..... 44
Tandy calls out IBM, packing a new 16-bit, $4,495 weapon

**PC-Lab**

*Testing T.I.M./Larry Press* ..... 48
Putting the PC's first available file manager through its paces

**User's Report**

*T.I.M. Faces Real Life/Cheryl Woodard* ..... 54
How the T.I.M. program worked out in PC's real-world situation

**Communications**

*The Virtual Conference/Clifford Barney* ..... 58
Using your Personal Computer for on-line conferencing

**Hardware**

*Color Displays/Jim Edlin and Linda Thatcher* ..... 66
Color for the PC: What's available and how to choose

*Color Printers* ..... 71
The final step—getting pretty colors onto paper

**Programming**

*Using Color Graphics/Lon Poole* ..... 75
A hands-on, how-to introduction to PC BASIC's powerful graphics commands

*Magic PCube/Karl Koessel* ..... 85
A simulation of Rubik's Cube on the IBM PC

**PC Profile**

*A Tale Of Two Beginnings/Jeremy Joan Hewes* ..... 88
How a corporate executive and a personal technology consultant are using IBM Personal Computers

**PC Playpen**

*Math Games/Prof. D. H. Cabbage* ..... 100
Can the PC make learning arithmetic fun?

**Issues**

*Perspectives on Protection/Hal Glatzer* ..... 108
The whys and hows of "copy-protecting" software

**Follow-Up**

*EasyWriter Update Coming/Jim Edlin* ..... 114
Information Unlimited says revised version being readied.

**Taking The Measure . . . (Part 2)**

*User's Manuals/Jeremy Joan Hewes* ..... 116
Do the reference books measure up to the machine?

*Basic Benchmarks/Larry Press* ..... 118
Putting a stopwatch on the PC's BASIC language

**Age of Altair**

*Context Of The Revolution/David Bunnell and Eddie Currie* ..... 138
Part II of this series tells why computer kits weren't for everyone

**Columns**

*David Bunnell* ..... 11
Cowboy Publishing

*Zero Base Thinking/Jim Edlin* ..... 12
The Monochrome Mistake

*Communications Briefs/Clifford Barney* ..... 83

**Departments**

Letters to PC ..... 6
PCommuniques ..... 15
User-To-User ..... 104
EasyWriter tips and more

PC Book Review ..... 112
IBM's Personal Computer, Que Corp.

News On The Market ..... 125

PC Interview ..... 131
Microsoft's Vern Raburn

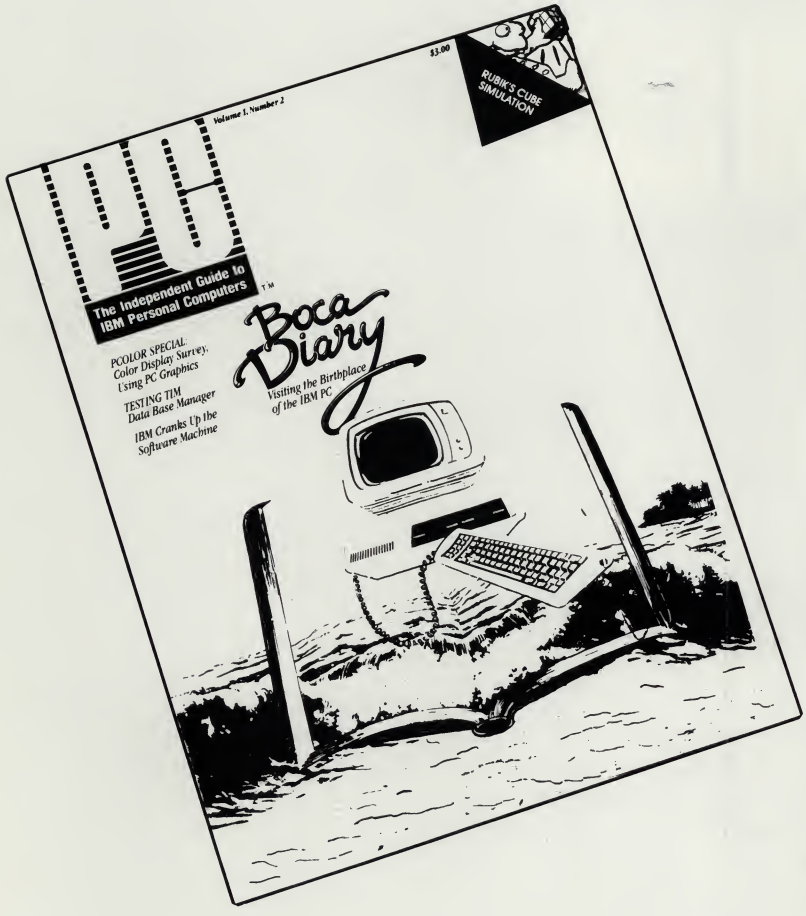
Directories ..... 135

Advertiser Index ..... 143

Wish List ..... 144

**Cover:** Design—Linda Harrison.
Painting—Linda Schaub-Nace






**IBM Personal Computer?**

Information-rich new magazine helps you pick the right system, then get the most out of it

The Independent Guide to IBM Personal Computers

Hundreds of colorful pages packed with news of add-on products, software programs, services, and how people are already using their IBM "PC's".

Subscribe to *PC Guide*™ and save up to 25% off cover price. Six issues for only $14.50 or 12 issues for $27.* Mail check with name, address and ZIP to:

**PC Guide, 1528 Irving St., San Francisco, CA 94122. Phone credit card numbers to 415/753/8092.**

* Money-back guarantee: If not satisfied, return mailing label in ten days for full refund.

# 10 CAN PLAY INTERACTIVE DECWARS GAME

The vast and inscrutable galaxy appears tranquil, but Stormcrow knows the surface calm conceals many dangers. A check with other Federation forces confirms his fears: the Klingons have already established 10 starbases while his own human forces lag five behind.

Klingons — large, forceful creatures with round faces and evil eyes — are not the only threat to the human Federation's survival. Immense caverns of nothingness dot the skies, assuring instant death to all who fall within these black holes. An evil Romulan concealed in a cloaking device may make surprise attacks on humans and Klingons alike. And even neutral planets take pot shots at careless captains who venture to within two sectors of their locations.

Undeterred by what he hopes is a temporary setback for Federation forces, Stormcrow puts out a jaunty APB over his sub-space radio: "Tell all Stormcrow is here. Prepare to die, Empire monsters!"

Encouraged by the plucky captain's verbal swaggering, the Federation's Nimitz ship radioes back: "Now is the time for all good men to come to the aid of their planet!"

Battered Federation forces are substantially strengthened by Stormcrow's entry. His undamaged ship brings with it 5000 units of shield energy to protect it from phaser and photon torpedo hits. His as yet unimpaired photon torpedo tubes pose a serious threat to the enemy due to their 10-sector hit range. And, perhaps most important to the ailing Federation forces, his strength can be used to activate tractor beams to tow damaged ships away from danger.

A challenge to battle from an Empire ship named Jackal is put on hold while Stormcrow moves to capture a neutral planet. A transfer of materials and energy builds it into a starbase with the power to fire upon enemy ships within a five-sector range.

Meanwhile, his sub-space radio keeps Stormcrow informed of developments in other parts of the galaxy. An empire ship has built three more starbases and captured another planet. At 1000 points per base and 100 per planet, the enemy has added 3100 points to his individual score.

On the home front, the Nimitz rallies to make a deadly hit on an Empire ship, and the Demon is destroyed. "Let's party," he declares triumphantly to Stormcrow. But before the galactic celebration can take place, the Nimitz, too, bites the stardust — the victim of a sneak attack by the Empire ship Cobra.

---

Designed for up to 10 players, Decwars is accessed under main menu item 2, Home Services. The first person to log onto the game chooses a Federation ship, while the next player gets an Empire ship. This alternation of ships continues so that sides are as evenly divided as possible.

Arranged in a grid of 75 by 75 sectors, Decwars' galaxy allows for freedom of movement. Ships can move from sector to sector to defend themselves and to attack enemy installations and ships.

Players are free to enter and leave the game as desired. And though death — as with the valiant Nimitz — may come as an instantaneous shock, it is a temporary fate. Destroyed ships may immediately log back into the game to begin racking up new scores in the perpetual battle between the forces of good and evil.

*by Carole Houze Gerber*

---

DECWARS

**Check the on-line "What's New" column for details on the upcoming national Decwars tournament to be held later this year.**

# VIDEOTEX LETS TOP MAGAZINE INTERACT WITH READERS

Imagine having a group of scientific experts available at your beck and call. Before hiring a mechanic to fix your car, you check with *Popular Science* magazine's on-line auto experts for a diagnosis of your car's particular problem.

Suppose you want an overview of new electronics developments in both the research and new product areas. Instead of shuffling through books at the library, an instant archive of scientific information is available. Six months worth of *Popular Science's* electronic editions are easily accessible through CompuServe. (*Popular Science* is located in the Reference Library option of the Home Services menu.)

"The idea is that this is instant information," says *Popular Science* editor Susan Renner Smith. "Readers can get a sense of what we are offering at a glance. It's all in one place. They can quickly skim through and get a good idea of what's going on in the world of science and technology. It's like having six magazines stored and available at your fingertips."

Back in 1980, Smith was assembling a story for the printed magazine on videotex (the video version of traditionally printed information) when it occurred to her that *Popular Science* should be made available in an electronic edition.

"Since we're in the forefront of the new technology, I thought we should be a part of it," says Smith. Others at the magazine agreed that such a venture would "extend the influence and enhance the impact of the magazine."

COURTESY POPULAR SCIENCE

**Popular Science test lab.**

So *Popular Science* became a part of the CompuServe Information Service. "It is basically a learning experience for us," comments Smith. "We want to participate in the new technology, and this is the best way for us to learn."

So far Smith has been surprised at the popularity of some *Popular Science* features (like new products) over others (energy).

Right now, the magazine offers specially-edited features to CompuServe customers. These include: "Science News Front" — news items from the world of science and technology, and "New Products: What's New in Electronics, Home Improvement, and Photography" — short capsules of information on new things in the market place along with explanations of how they can be used.

In addition, CompuServe customers have access to a summary of *Popular Science's* respected auto tests. They offer test reports that compare maneuverability, handling, braking, acceleration, quietness, roominess, etc. and rate cars that are related in style or features (i.e., small station wagons) on a scale of 0 to 5.

Another auto-related feature is called "Car Clinic." Smith describes it as "a 'Dear Abby' for car

owners. People with very specific car problems can just type in their questions and well-known mechanic and engineering expert Smokey Yunick will give them his answer through the system. We'd also like to post the problem on an electronic bulletin board on CompuServe so other customers can offer their solutions to the case," explains Smith.

"We think this reader activity feature will encourage the readers to get involved," says Smith, "and we want to offer them sources of information they never would have access to otherwise. This is really where we want to go in electronic publishing. We hope to draw in the readers' response."

Toward this end, each *Popular Science* feature finishes with a reader survey to find out what kinds of information users are interested in as well as what types of related products they own. There is also an electronic mail User ID number which enables users to respond instantly with letters to the magazine.

COURTESY POPULAR SCIENCE

**Popular Science Editor-in-Chief C.P. Gilmore shows layouts of the May 1982 110th anniversary issue at a monthly editorial promotion meeting.**

## Smith: "We think we have a unique magazine."

Editor Susan Renner Smith explains the magazine's commitment to its readers: "We think we have a unique magazine. It's edited for a very special kind of reader who's curious about everything that goes on in the world around him or her. We promise that nothing important happening in the physical sciences (geology, astronomy, physics, etc.) as well as in technology and engineering will be left uncovered by us. In other words, we will report on every development, and the reader can follow those developments through the years. And this has happened," says Smith. "We report on things while they are still being developed in the labs and when the technology leads to consumer products. When products become available we offer explanations of the products, costs, advantages and disadvantages—everything the reader needs to know so he can choose wisely in buying.

"We also have what we call a 'reader activity component' in which we instruct the reader in the best way to use the products efficiently. That, in a sense, is 'how-to,'" says Smith. "We offer guidance in how to apply these new technologies to meet our readers' needs."

*—P.G.*

Still another feature invites readers to send the magazine their own particular "Energy Adventure" which outlines how they put alternative energy sources to creative use. For example, one reader built a windmill that he uses to charge his electric car.

Plans for a future addition to CompuServe from the magazine promises to be a chance to test your wits against auto experts. Using auto mechanics' certification test problems, the system would offer customers instant evaluations of their answers to problems. The idea is to build your own skills while testing your knowledge.

"All in all, our learning experience with CompuServe has been very enlightening," says Smith. "It points out that people are most interested in the instant give and take that's possible on a computer network. That's where our Car Clinic feature holds great promise. There you can really use the medium.

"The idea of reaching out to people — getting them in a network where they can share their experiences and then have various experts comment and offer advice — this strikes me as a very exciting service. It's something that we could do not only in the area of auto information but in many other areas . . . that's where our future is."

*by Peggy Garvey*

WILL SHIVELY

# SCHOOL OFFERS INSTRUCTION IN COMPUTER LITERACY

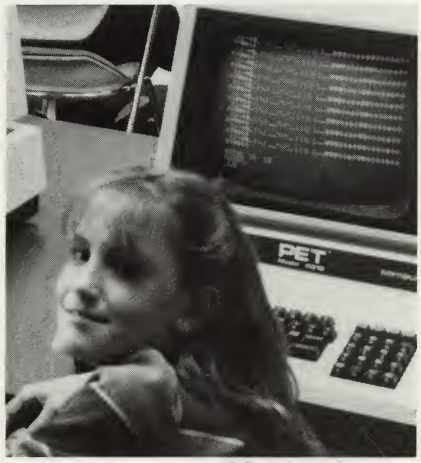
Are you a computer illiterate? Baffled and sometimes even afraid of the mystery surrounding the magical keyboard and the deep dark screen? Well, fear no more. There will soon be a course for you and your children — specially designed to demystify microcomputers.

This structured, "hands-on" learning program will be offered by The Children's Computer School in Columbus, Ohio beginning in May. The school will offer daytime and evening classes which will focus on teaching basic computer operation and programming. The school will expand to many other cities across the country in the future.

"We foresee personal computers being an everyday mode of operation in every business and every home," explains Linda Thoirs of CompuServe, which is lending technical support to the school. "The idea is to teach computer literacy and computer competency so that when we evolve to the stage when everyone has his own computer — he'll know how to use it.

"It's a natural fit for CompuServe," says Thoirs, "especially with our personal computing division. It just makes sense to teach people how to use computers. This is just the start of many more things of this nature that will help overcome the basic fear of computers and teach people on an individual basis how to make computers work for them."

While researching the concept of a computer school for kids, CompuServe officials heard about Dr. Eugene Galanter of Columbia University in New York. He had developed what they were looking for — a working model of a computer school geared towards teaching children, but with an enrollment that included 50 percent adults.




**The Children's Computer School teaches BASIC programming and personal computer use to children and adults.**

"We were very impressed by the simplicity of his methods of teaching at the Children's Computer School," says Thoirs. "The eight-week course is presented in everyday language without getting into high-powered computer wordage. Children can start as soon as they know how to read, usually by age seven or eight."

The key to Dr. Galanter's course is "hands-on" instruction. Each child has his own computer. With ten students, an instructor and an assistant trainer in each class — every student receives a great deal of personal attention. Encouraged to progress at their own pace, students are placed in classes, not according to age but rather by their ability.

Thoirs suggests that children could take the class as they might seek out instruction in a foreign language. "We have seen that children take to this like ducks to water. They have no fear," says Thoirs. "They don't always understand the theory behind it, but they're open to learn. It's a natural thing, like learning languages, when they're small. They comprehend so quickly and it gets to be like second nature to them — just like using the telephone."

The simple language spoken by most personal computers even has a name. It is called BASIC (Beginner's All-Purpose Symbolic Instruction Code). After learning BASIC programming in two four-week sessions (two hours each week), students can move to a variety of carefully organized computer literacy classes, including assembly and machine language, word processing and graphics.

After completing the first course, many of Dr. Galanter's students can write programs that help them with their regular school work. One student even developed a program to teach and test for Latin declensions.

In addition, notes Thoirs, learning to work with computers "teaches discipline, logic, manual dexterity and improves eye/hand coordination, reading and math skills.

"In the future," concludes Thoirs, "learning computers will be just like learning how to read and write and do math. It will be part of your everyday life. This is just the beginning."

If you'd like more information about The Children's Computer School, call 614-451-3444 or write The Children's Computer School, 1822 Fishinger Road, Columbus, Ohio 43221.

*by Peggy Garvey*

*continued from page 9*

prices will also be available 24 hours per day. Future additions to the database will include current information on dairy, livestock, grain and poultry markets around the country.

In order to access the system, subscribers must have a telephone, TV set and a computer terminal. Terminals are currently offered by several companies including Radio Shack and RCA. Personal computers such as Apple, TRS-80, Atari and many others can also receive this information.

A unique feature of the Farm News Express system is the ability to offer subscribers two-way communications. Through a "bulletin board" feature, anyone on the system can place an offer to buy or sell and update it at any time. The Electronic Mail feature allows direct communication with anyone or any group on the system anywhere in the U.S.

Through an agreement with CompuServe Incorporated, Farm News Express users will also be able to access the CompuServe Information Service (CIS). Information available on CIS includes news from major newspapers and wire services, stock market reports, commodity news, shopping and banking at home and family games.

Rates for the Farm News Express system are $25 per hour from 5 a.m. to 6 p.m. weekdays and $12.50 per hour from 6 p.m. to 5 a.m. weekday evenings and all day weekends.

For more information contact Farm News Express, 6420 Dean Dr., Woodridge, Ill. 60517, or call (312) 968-5699.

**OUT OF FOCUS ON SOFTWARE?**

For the first time you can fill most of your software needs with just one telephone call.
Whether you are trying to find a specific program or custom software
or simply need help for your system — GIVE US A CALL.

SOFTWARE THAT MEANS BUSINESS

- Order Entry
- Invoicing
- Inventory Control
- Accounts Payable
- Accounts Receivable
- Payroll
- General Ledger
- Custom Business Programs
- Word Processing
- Medical/Dental
- Sales/Marketing
- Data Base System
- Business Statistics
- Stock Market
- Games
- Computer Billing Service

**COMPUTER CORRAL**
23011 Moulton Parkway — Suite G-6
Laguna Hills, CA 92653 • 714/855-9496


## NEW MAGAZINE OFFERED FOR PASCAL USERS

Southwater Corporation has announced the release of the premier issue of Pascal Market News.

Issued six times a year, Pascal Market News is directed towards current and prospective users of the Pascal programming language. The publication contains news about hardware and software relevant to Pascal, feature articles, interviews and commercial notices.

The first issue highlights the use of Pascal in real-time chemical analysis of blood samples at Yale-New Haven Hospital in Connecticut.

According to the vendor, subscribers to the news magazine are entitled to discounts on numerous Pascal-related books and soft-

ware publications.

Prepaid North American subscriptions by first class mail are $20 annually. Foreign prepaid air mail subscriptions are $29 U.S. annually. Invoiced subscriptions are $4 higher.

A money-back guarantee is offered.

Subscriptions may be ordered from Pascal Market News, P.O. Box 5314, Mt. Carmel, Conn. 06518.

## IBM PERSONAL COMPUTER USER GROUP FORMS

A national users group is being formed for users of the IBM personal computer.

Autumn Revolution '81, Inc. is a national organization of owners, users and others interested in the IBM personal computer. The organization is totally independent of International Business Machines, Corp. or any other computer manufacturing or marketing organization. Autumn Revolution is dedicated to its members and to the development and application of the capabilities of the IBM personal computer.

Interested persons should contact Autumn Revolution '81, National Headquarters, 10981 E. 23 St., Tulsa, Okla. 74129, (918) 438-4582.

## DOT MATRIX PRINTER FROM LEADING EDGE

PRO-WRITER is a new dot matrix printer offering professional quality printing. The Pro-Writer, which is the newest member of the

**If you're interested in Apples,**

**call MAUG.**

MAUG is a Special Interest Group (SIG) of Apple® users on the CompuServe Information Service. SIGs are active and growing groups of individuals who share a common interest and form an "electronic" club using the CompuServe Information Service as its communications medium. Share advice and exchange information with other Apple users across town or anywhere around the country.

We think you'll like the CompuServe Information Service: CB simulation, electronic mail, news wires, financial information, games, data bases, programming languages, big mainframe computer power and free data storage. All for a basic charge of only $5.00 an hour nights and weekends. All you need is your Apple, a modem and some inexpensive software. The software, and a free demonstration, are available at—of all places—a Radio Shack® Computer Center. CompuServe Information Service, 5000 Arlington Centre Blvd., Columbus, Ohio 43220. (614) 457-8650.

**CompuServe**

**SOMEDAY . . . in the comfort of your own home or office, you'll be able to shop and bank electronically, read instantly updated major newswires, analyze the performance of a stock that interests you, send electronic mail to business associates across the country, then play Bridge with your best friend in San Francisco and two strangers in Chicago and Dallas.**

**WELCOME TO SOMEDAY**

Someday is today with the CompuServe Information Service. All this and more can be accessed with a local phone call in most major U.S. cities. For hardware you need a terminal or personal computer and a modem. The CompuServe Information Service costs only $5.00 per hour, billed in minute increments to your charge card.

Ask for a demonstration at a Radio Shack® Computer Center. Videotex software is available for various brands of personal computers. CompuServe Information Service, 5000 Arlington Centre Blvd., Columbus, Ohio 43220. (614) 457-8650.

**CompuServe**

C.ITOH family, includes 120 cps bidirectional printing, logic seeking and proportional spacing combined with excellent resolution. Graphics capability is built-in and includes shape and high resolution features. The Pro-Writer boasts of its 1K buffer in parallel and 3K buffer in serial, increment printing ability, N X 9 dot matrix, and its correspondence quality print in eight character sizes.
Leading Edge Products, 225 Turnpike St., Canton, Mass. 02021, (800) 343-6833.

# ORGANIZATION ENCOURAGES DEVELOPMENT OF GRAPHICS

Young people 18 years of age and younger will have the opportunity to earn their own computer by developing one of the most creative graphic computer programs as judged by the Young Peoples' LOGO Association (YPLA) and leaders from the personal computing industry.

Sponsored by the YPLA, the program is designed to encourage young people to explore the graphic capabilities of their computer, be it at home, in a club or a classroom.

Programs submitted will be judged on originality and creativity, balanced against the capabilities of the language and system used and the age and experience of the programmer.

For additional information about the "Earn a Computer" program, contact the Young Peoples' LOGO Association, 1208 Hillsdale Dr., Richardson, Texas 75081, (214) 783-7548.


**CompuServe: What's in it for the 80s?**

Plenty! First there's MNET80, a Special Interest Group (SIG) of TRS-80® users on the CompuServe Information Service. SIGs are active and growing groups of individuals who share a common interest and form an "electronic" club using the CompuServe Information Service as its communications medium. Share advice and exchange information with other TRS-80 users across town or anywhere around the country. TANDY services include an electronic newsletter, answers to your questions directly from Ft. Worth, product availability, tips and hints.

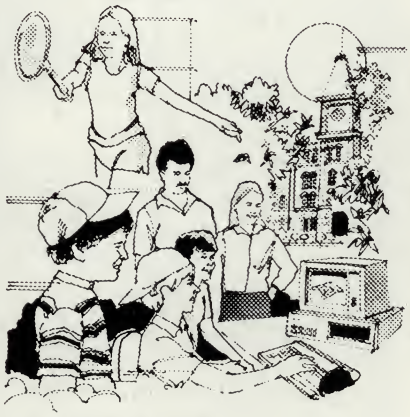
Secondly, we think you'll like the CompuServe Information Service: CB simulation, electronic mail, news wires, financial information, games, data bases, programming languages, big mainframe computer power and free data storage. All for a basic charge of only $5.00 an hour nights and weekends. All you need is your TRS-80, a modem and some inexpensive software. See a free demonstration of CompuServe in action at your Radio Shack® Computer Center. CompuServe Information Service, 5000 Arlington Centre Blvd., Columbus, Ohio 43220. (614) 457-8650.

**CompuServe**

**OSU COMPUTER CAMP**

Your Child's Gift for the Future

Understanding and using computers are today's keys for tomorrow's education and careers. The Ohio State University invites you to nurture your child's fascination with the world of computers. Under close supervision campers will combine instruction, individual and group projects, sports, crafts, field trips, and friendships in an unforgettable educational adventure.



SPECIAL FEATURES:
- Resident counselors
- Curriculum designed by OSU faculty
- IBM Personal Computers
- Air-conditioned dorm
- Coed, ages 12-16
- Two-week sessions: July 18-30 or August 1-13
- OSU's main campus in Columbus

OSU The Ohio State University

For information write or call The Ohio State University Office of Continuing Education, Noncredit Programs, 2400 Olentangy River Road, Columbus, Ohio 43210, 614 422-8571.

# *Simply.*

The beauty of an orchid can be found in its simplicity. At Bye & Bye, we believe it is just as simple for you to have a quality image thru print.

Its a fact! Few printing companies can offer the diversity of telecommunications, typesetting, professional photography, color separations, web and sheetfed offset, plus bindery, at one location!

From idea to reality, Bye & Bye will make your catalog or advertising as SIMPLE as dialing a telephone!

Do it now! Pick up your phone and call us. We'll do the rest. Simply.

**Bye & Bye, Inc. • 110 S. Main**
**Holstein, Iowa 51025**
**(712) 368-4353**

# Complete Your Video Revolution with A Radio Shack TRS-80 Color Computer!

At just $399, it's no wonder the Radio Shack TRS-80® Color Computer with 4000-character memory is the choice of so many individuals and families. You can play action-packed games and write your own programs in easy-to-learn BASIC. Best of all, we have an affordable TRS-80 Color Computer for more advanced applications, too.

**It's Entertaining!** Plug in an instant-loading Program Pak™, and battle starships in outer space, ski the slopes, play football or pinball, even challenge the computer at chess, backgammon or checkers! For $24.95, you can add a pair of joysticks for faster, more realistic action. And the TRS-80 Color Computer attaches to your own TV, or our $399 TRS-80 Color Video Receiver.

**High Resolution Graphics for Only $599.** For the money, it's easier to create complex graphics using the 16K TRS-80 Color Computer with Extended Color BASIC than with any other system. Simple, one-line commands make it a snap to produce drawings, graphs, diagrams, even animation. Choose a screen resolution of up to 49,152 programmable points (256x192) and up to eight vivid colors. Add music and sound effects, too.

**A Programmer's Dream.** The 16K TRS-80 Color Computer gives you full-featured editing, floating point 9-digit accuracy, trig functions, user definable keys, error messages, machine language routines, and much more. Add disk drives, or use the built-in RS-232 Serial Interface to connect a printer. And we include our excellent Color BASIC and Extended Color BASIC tutorial manuals.

**Access "Instant" Information!** A TRS-80 Color Computer and our exclusive TRS-80 VIDEOTEX software allow you to access special information by telephone. Get up-to-the-minute news, weather and sports from the Associated Press and "electronic" editions of major newspapers through the CompuServe® Information Service. You can request educational topics, play computer games, even communicate via "electronic" mail! Get stock quotes—as recent as 15 minutes—plus much more, including feature selections in *The Wall Street Journal* and *Barron's* from Dow Jones News Retrieval®. TRS-80 VIDEOTEX software is just $29.95, including a free hour on both CompuServe and Dow Jones.

**Available Only at Radio Shack!** See the TRS-80 Color Computer, its programs and accessories, TRS-80 VIDEOTEX, and much more at your nearby Radio Shack store, dealer or Computer Center.

**Direct-Connect Modem I.** Enter the world of microcomputer communications and access information services with your TRS-80 Color Computer. Connects directly to your phone line. $149.

**Radio Shack®**
**The biggest name in little computers™**
A DIVISION OF TANDY CORPORATION

Retail prices may vary at individual stores and dealers.
®CompuServe is a trademark of CompuServe, Inc.
®Dow Jones is a trademark of Dow Jones & Co., Inc.

**Tell me more!**
**Send me your free**
**TRS-80 Computer Catalog today!**

**Radio Shack**
**Dept. 82-A-499**
**1300 One Tandy Center**
**Fort Worth, TX 76102**

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____